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SECOND ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL,

FOR THE YEAR ENDING NOV. 30, 1910.



BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,

18 POST OFFICE SQUARE.

1911. ✓

362.2
M38/b
1909/10

APPROVED BY
THE STATE BOARD OF PUBLICATION.

362.2
M38b
1909/10-1919/20

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OFFICERS

OF THE

BOSTON STATE HOSPITAL.

TRUSTEES.

WALTER CHANNING, M.D., <i>Chairman</i> ,	Brookline.
HENRY LEFAVOUR, <i>Secretary</i>,	. . . . .	Boston.
Mrs. HENRIETTA S. LOWELL,	. . . . .	Brookline.
JOSEPH KOSHLAND,	. . . . .	Boston.
Mrs. KATHERINE G. DEVINE,	. . . . .	Boston.
WILLIAM TAGGARD PIPER,	. . . . .	Cambridge.
MICHAEL J. JORDAN,	. . . . .	Dorchester.

Stated meetings of the trustees are held at the hospital on the second Tuesday of each month.

OFFICERS.

HENRY P. FROST, M.D.,	<i>Superintendent.</i>
SAMUEL W. CRITTENDEN, M.D.,	<i>Assistant Superintendent.</i>
GEORGE H. MAXFIELD, M.D.,	<i>First Assistant Physician.</i>
MARY E. GILL, M.D.,	<i>Assistant Physician.</i>
ARMY C. NOBLE, M.D.,	<i>Assistant Physician.</i>
STEPHEN E. VOSBURGH, M.D.,	<i>Assistant Physician.</i>
HARRY M. NICHOLSON, M.D.,	<i>Junior Assistant Physician.</i>
MYRTELLE M. CANAVAN, M.D.,	<i>Pathologist.</i>
WILLIAM E. ELTON,	<i>Treasurer and Steward.</i>
JANE ROBERTSON,	<i>Superintendent of Nurses.</i>
JESSIE M. BUIST,	<i>Assistant Superintendent of Nurses.</i>
FLORENCE N. SPIDLE,	<i>Matron.</i>
ARTHUR E. MORSE,	<i>Chief Engineer.</i>
LOUIS S. WHITE,	<i>Farmer.</i>

VISITING COMMITTEES, 1910-11.

February,	Mrs. DEVINE and Mrs. LOWELL.
March,	Mr. LEFAVOUR and Mr. KOSHLAND.
April,	Mr. JORDAN and Mr. PIPER.
May, °	Dr. CHANNING and Mr. KOSHLAND.
June,	Mrs. DEVINE and Mrs. LOWELL.
July,	Dr. CHANNING and Mr. PIPER.
August,	Mr. LEFAVOUR and Mrs. LOWELL.
September,	Mr. KOSHLAND and Mr. JORDAN.
October,	Mrs. DEVINE and Mrs. LOWELL.
November,	Mr. LEFAVOUR and Mr. PIPER.
December,	Mr. KOSHLAND and Mr. JORDAN.
January,	Dr. CHANNING and Mrs. DEVINE.

The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to present herewith their second annual report.

DEVELOPMENT OF THE HOSPITAL.

In the last report it was stated that the trustees and the superintendent had devoted much attention to the study of plans for the development of the hospital, the expectation being that several thousand patients must be provided for in the future. As a result of further deliberations a general layout of buildings, subject to modification, has been decided on as follows: at the corner of Austin and Canterbury streets a reception group for both sexes; an industrial group for women on Canterbury Street, which will provide for quiet cases able to work, and some of whom will eventually recover; a custodial and infirmary group for both sexes is already being erected not far from the buildings at the men's department, and there will be a second one for the same class of patients; at the corner of Walkhill and Harvard streets an industrial group for men; then to the north, on Harvard Street, a group of farm cottages for male patients. These various buildings all have slightly locations, and, while not too near, are well placed in relation to each other and convenient of access and administration. It will be seen that the plan outlined provides for a large number of patients, from those, on the one hand, needing thorough hospital treatment, to those, on the other, who have become chronic and capable of doing only the simplest kind of outdoor work.

As a first step toward the enlargement of the hospital the

trustees asked, in their last report, for an appropriation of \$358,000; \$275,000 to be expended on an infirmary group for 300 patients; \$39,000 for an addition to the Butler building, for the treatment of acute cases; and \$44,000 for a laundry building, which would also provide room for some of the industrial occupations.

The Legislature granted the appropriation toward the end of the session of 1910. As soon after as possible the necessary proposals for all the buildings were advertised, and contracts awarded in September. Work was begun immediately, and at the date of this report is well under way. The foundations of the basement of the infirmary buildings are finished, and laying the brick for the walls will begin at once. The laundry and the Butler addition will soon be roofed in. Both the latter buildings should be ready for use in the spring of 1911. The Butler addition has wards for acute cases, with prolonged baths. The whole building will furnish very complete and much-needed facilities for treatment. In the basement the hydrotherapy plant, electrical, massage, rest and dressing rooms are located. The laundry building will make it possible to employ many more patients in that department, and give more room for shops for industries.

PSYCHOPATHIC HOSPITAL.

A further step in the development of the hospital will be the erection of the psychopathic hospital. Last year, under the heading of the "Hospital for the First Care and Observation of Acute Cases," we stated that land had just been purchased for a site at the corner of the Parkway, Brookline Avenue, Fenwood Road and Vila Street.

Preliminary plans for a building had already been made by the State Board of Insanity for another site, and it was hoped that these might be to some extent available. While they have been suggestive, numerous problems have arisen in designing a building for which there was practically no precedent, and many months of hard work have been expended by Dr. Copp, who has acted as agent of the building committee, Messrs. Kendall, Taylor & Co., the architects, and French & Hubbard,

engineers. Working plans and specifications for the construction of the building were finally ready, and bids were advertised for in October and the contract awarded early in November. At the present date the basement has been excavated and the forms for the concrete foundation are being put in place. The contract calls for the completion of the building January, 1912, and, unless unforeseen difficulties arise, the hospital should be open for patients in the late spring of 1912.

TEMPORARY CARE CASES.

The trustees were requested by the State Board of Insanity, under chapter 307, Acts of 1910, to assume, on May 1, 1910, the temporary care and observation of persons suffering from mental disorders who should come under the care of the police in the city of Boston, pending examination and commitment. To make proper provision for them, it was necessary to vacate the Butler building, which had hitherto been used for disturbed and excited women. One floor was set apart for men and one for women. The total number received from May 1 to December 1 has been 198; 115 of these being men and 83 women. When the addition to the Butler building is completed, the facilities for treating these patients will be much improved. The added care and expense of looking after such a large increase in the admissions have been considerable, but such admissions have made the medical service more active, and been one of the means leading to a better classification of the patients, which the superintendent is gradually accomplishing.

ADMINISTRATION.

In the previous report attention was called to the difficulty of administering the departments for men and women, which had hitherto been very much like two separate institutions with many duplications and consequent waste of time and money. The effort has been made to centralize the management of the medical and business affairs at the women's department. The superintendent and the steward, who is also the treasurer, have their offices at this department, and the stores for the whole insti-

tution are kept there. All temporary care cases, both male and female, are received at this department, and the new laboratory, which is already doing excellent work, is in the basement of one of the buildings. The Butler addition, the new laundry, the proposed service building, the electric light plant and the already installed central telephone exchange are all located there, with the idea of gradually doing away with unnecessary duplication, and making management from one center efficient and economical. As the institution increases in size, the wisdom of so doing will become more and more apparent.

It can be said, without exaggeration, that the spirit pervading the institution has gone on steadily improving since our last report. The change is noticeable from the medical officers through the whole staff of employees. The quality of work is better, and a spirit of cheerful co-operation pervades the entire hospital. The trustees are gratified at the advance made in this direction.

OCCUPATION OF PATIENTS.

It will be seen from the superintendent's report that steady progress has been made in improving the medical care of patients, and soon it should be on a par with that in the best State hospitals. An important factor in this improvement is the increase in occupation. The July report of the superintendent states that in 1909, during the month of June, 136 men and 129 women were employed, whereas in the corresponding month in 1910 there were 186 men and 253 women. It is satisfactory to know that among the outdoor workers were demented, untidy and disturbed patients who hitherto had been idle in the wards. One especially valuable piece of work done by the outdoor workers was the filling in of the new road from the Butler building to Harvard Street, and excavating for the addition. This was quite a large undertaking, and was a saving to the State as well as a benefit to the patients. As the superintendent gives a detailed statement of the kinds of occupation, nothing need be said here on the subject. The trustees hope to continue to find congenial employment for patients, until all who are able have something to do.

REPAIRS AND IMPROVEMENTS.

The year has been a busy one in this department as appears from the superintendent's report. Much outside and inside painting and mason and carpentering work have been done. Special attention has been paid to the barns, basements, corridors and out-of-the-way places, which were sadly in need of renovating. The solarium and laboratory, both valuable improvements, were completed at small expense by the hospital mechanics. The appearance of the grounds has been much improved by clearing up the Callahan property, from which old buildings, walls and fences have been removed.

While a good deal has been accomplished, much remains to be done before the trustees will feel that the hospital is in first-rate condition. The barns, stables and piggery are all old and unfit for use, and should be pulled down and replaced by others. The plumbing in many wards is worn out, and so unsanitary that it should be removed.

The wards would be much pleasanter to live in if they could be fitted up with enough furniture to make them homelike. It will take a liberal expenditure each year for several years, but as much as possible should be done if we wish to accomplish the best results, both from the medical and the humanitarian points of view.

APPROPRIATIONS FOR 1911.

The maintenance appropriation asked for this year is \$223,600, or an increase of \$10,050 over last year. This increase is mainly accounted for by the increased compensation and shorter hours of nurses, salaries and wages for a larger medical and general staff, temporary care cases, and the cost of board of a larger number of patients.

To carry out the plans of the trustees for the further growth of the hospital, the following special appropriations are respectfully asked for: in visiting the buildings in the men's department legislative committees have very justly criticised the large amount of unnecessary space taken up by halls and passageways, and also the cheerlessness of them. Plans have been

prepared for throwing some of these halls into the wards and taking down partition walls, in this way giving more light and enough extra space to accommodate about 32 patients. For this purpose the trustees ask for the sum of \$6,000.

At present we have no proper quarters for male nurses, and this lack is one of the reasons why it is hard to retain good men in our employ. With the continually increasing number of patients, our present accommodations, poor as they are, are becoming overcrowded. We therefore ask for an appropriation of \$22,000 to provide a nurses' home for 35 men.

For a portion of a group of farm buildings, to comprise two dormitory buildings and a central service building, we ask an appropriation of \$83,000. The central service building will provide for the future needs of the entire group. At present we are hardly doing all that we should for our patients employed on the farm. They should live near their work, and be allowed liberty and privileges not possible for other and sicker patients. It will be of distinct advantage to have them in a group, and easily accessible to the farm and barns.

For a service building for the entire institution, including a bakery plant, we ask an appropriation of \$42,000. So far the hospital has had only a few small refrigerators and no store-room of adequate size. Consequently provisions cannot be kept in quantity, and only a limited stock of general supplies. Within a comparatively short time we shall have a population of upwards of 1,200. The economical administration of an institution caring for so many patients requires a thoroughly equipped service building, including a refrigerating plant.

When the infirmary buildings are completed an addition to the electric light and power plant will be needed. We ask \$13,875 for this purpose.

Summary of Appropriations for 1911.

Maintenance,	\$223,600
Special appropriations: —	
Alterations, buildings men's department,	6,000
Nurses' home,	22,000
Farm group,	83,000
Service building,	42,000
Addition to electric light and power plant,	13,875

RESIGNATION OF A MEMBER OF THE BOARD.

On Oct. 19, 1910, the chairman received notification from Mr. Koshland that he had tendered his resignation to the Governor as a trustee. At the November meeting of the Board the following resolution was unanimously adopted:—

Resolved, That the secretary be directed to communicate to Mr. Joseph Koshland their very deep regret at his withdrawal from the Board, and their high appreciation of his valued services as a trustee.

RESIGNATION OF SUPERINTENDENT — APPOINTMENT OF SUPERINTENDENT AND DIRECTOR.

In February Dr. Copp resigned, finding it impossible to act as superintendent and at the same time perform his duties as executive officer of the State Board of Insanity. At a special meeting in March the Board voted to accept his resignation as superintendent, to take effect April 15, and it also voted "that the Board express to Dr. Copp its grateful appreciation of his very valuable and successful service in the interest of the hospital." At the same meeting, Dr. Henry P. Frost, first assistant physician of the Buffalo State Hospital, was elected superintendent, the appointment to take effect April 15. Dr. Frost had been for twenty years in the service of the State of New York, first at Willard, and later, for thirteen years, at Buffalo, and his recommendations were of the highest character. The trustees are glad to say that he has fully realized their anticipations of his medical and administrative ability.

Recognizing the importance of having a man of the highest attainments to take charge of the medical and scientific work of the psychopathic hospital, the trustees gave careful and prolonged consideration to the matter. As a result they tendered the appointment to Dr. Elmer E. Southard, professor of neuropathology in the Medical School of Harvard University, and pathologist to the State Board of Insanity. Dr. Southard has accepted the appointment under the title of director, and will enter on his duties when called on. In the meantime he has

given valuable advice as to the arrangement and equipping of the laboratories.

The reports of the superintendent and treasurer are appended.

Respectfully submitted,

WALTER CHANNING.

HENRY LEFAVOUR.

HENRIETTA LOWELL.

KATHERINE G. DEVINE.

MICHAEL J. JORDAN.

WILLIAM TAGGARD PIPER.

SUPERINTENDENT'S REPORT.

To the Trustees of the Boston State Hospital.

The annual report of the superintendent is respectfully submitted for the year ending Nov. 30, 1910, together with the statistics prescribed by the State Board of Insanity, which are for the year ending September 30.

There were 790 patients in the hospital at the beginning of the statistical year; the admissions numbered 597, the dismissals 371, deaths 155, leaving 861 at the close of the year.

The daily average number of patients was 816.41, of whom 694.40 were State charges, 39.59 reimbursing and 82.42 private; 1,323 different patients were in the hospital during the year.

There were 49 emergency, 10 voluntary and 165 temporary care cases; of the last mentioned, 55 were committed to this hospital, 54 committed to or returned to other hospitals, 46 were discharged without commitment, and 10 remained in the observation ward at the end of the period.

Exclusive of temporary care cases, transfers and returns from visit, 407 patients were received, of whom 350 were admitted for the first time, 36 for the second time and 21 for the third to ninth time.

The cases never before committed to any hospital for the insane numbered 330, of whom 166, or 50.3 per cent., were foreign born, and 263, or 79.6 per cent., were of foreign parentage on one or both sides.

The average age on admission of cases first admitted to any hospital was 46.17 years; 22.4 per cent. were 60 years of age or more.

The chief causes of insanity were senility in 15.4 per cent., alcoholic excesses in 10.6 per cent., and syphilis, apoplexy, arteriosclerosis and other organic conditions affecting the nervous system in 8.7 per cent.; 3 per cent. had congenital mental defect.

The duration of mental disease before admission to the hospital averaged 13.8 months; it was less than 6 months in 48.1 per cent.

Not more than 33.3 per cent. of cases first admitted were suffering from curable forms, such as manic-depressive insanity, toxic and exhaustion psychoses, etc.; 10.3 per cent. were cases of general paralysis.

The discharges, exclusive of transfers, numbered 237, of whom 65 were recoveries, being 10.9 per cent. of the admissions. If the temporary care cases be excluded, the discharges numbered 140, of whom 43 were recoveries, — 10.5 per cent. of commitments. On the same basis, 18 were discharged as capable of self-support and 53 as improved. Undoubtedly these figures are too low to represent the actual recovery rate, owing to the frequent failure to ascertain the condition of discharged patients at the end of the six months' trial period, an omission which it is now sought to supply by requiring them to return to the hospital for final examination, or to furnish otherwise satisfactory information on this point.

There were 155 deaths, 2 of which were in the temporary care service; excluding these, and figuring on the committed cases only, the deaths were 12.5 per cent. of the whole number of patients under treatment. This is an increasing percentage, due to the fact that we receive so large a proportion of the aged and feeble, and do not include this class in the periodical transfers which are made to asylums. Eighty-five, or 55.5 per cent., of those who died were over sixty years of age, and 21 were over eighty.

Death resulted from tuberculosis in 7 cases, from cerebral apoplexy in 11, from general paralysis in 35. Two of the deaths were suicides; 1 was from accidental injury and 1 from asphyxiation with food.

The hospital is caring for more patients than heretofore, notwithstanding its capacity is reduced by giving up the Butler building to the temporary care service, and using the farmhouse for employees instead of for patients' quarters. This has been made possible during the summer and fall by lodging 30 men patients in tents, and 9 women, cases of tuberculosis, in a canvas pavilion adjoining the infirmary ward. The patients who

had the fresh-air treatment were so greatly benefited by it, and were so comfortable and satisfied withal, that we are hoping to continue it next year on a larger scale.

The general health has been good throughout the year until October, when an outbreak of typhoid, or rather paratyphoid, fever occurred at the women's department, involving principally the nurses, but including among its victims to date the chief engineer, Mr. Morse, 2 cooks, the baker, a laundress, 2 porters and 2 male patients who were employed in the kitchen, — a total of 27 cases. Fortunately, no deaths have occurred, and at the present time most of the sick are convalescing. Owing to our lack of hospital accommodations for so many, 9 of the patients (nurses and other employees) were treated at the City Hospital. Through the kindness of Dr. Lesley H. Spooner of the Massachusetts General Hospital staff, who supplied the serum and demonstrated the method of administration, anti-typhoid inoculation was practiced on 48 of the officers and employees. If the epidemic is at an end, as appears to be the case now, it is presumable that this measure contributed to prevent its further spread.

With the co-operation of the State and city boards of health a thorough investigation was made, which showed that the disease was not due to infection through any article of food or drink, but that it probably spread by contact from a "walking" case, contracted outside the institution. The opportunity was utilized for the prosecution of research work on the epidemiology of typhoid and paratyphoid and laboratory study of cultures from the blood and dejecta. For collaboration with Dr. Canavan in this work we are indebted to Dr. E. T. F. Richards of the Harvard Medical School, as well as to Dr. Southard, pathologist to the State Board of Insanity, who gave valuable advice and helped to shape the inquiry.

In this connection it is gratifying to record that the research on diphtheria, authorized by the Board last year, has reached a stage where Dr. Morse, who has it in charge, thinks she can predict important practical results in the shape of a new diagnostic aid to distinguish true diphtheria from diphtheroid infections. A preliminary note by Dr. Morse will appear as an appendix with this report.

FATALITIES.

Two deaths by suicide and 2 from accident have to be reported. A woman patient, sixty-one years of age, suffering from melancholia, hanged herself with a towel in her room, on December 16, ten days after her admission to the hospital. A female epileptic died July 11 from asphyxiation, caused by the occurrence of a convulsion at the meal hour, food being drawn into the larynx. A patient in the men's department ran from the walking party and threw himself under a loaded wagon which was passing on the street, and was killed by a wheel crushing his neck. This occurred on September 13.

In the men's department a patient met his death, September 8, under circumstances which required and received a most rigid investigation. It was shown in an inquiry before the grand jury that he had made a violent assault upon an attendant, and a struggle ensued, both falling to the floor. The patient died in collapse a few hours later, and an autopsy by the medical examiner disclosed as the cause of death rupture of the inferior vena cava. Inasmuch as the attendant acted in self-defence, and exhibited a black eye and numerous abrasions on his face, while the patient's body presented externally only trifling marks of violence, the death was held to be due to unavoidable accident, and a "no bill" was reported. The attendant was, however, changed from ward duty to a position not involving the care of patients.

TEMPORARY CARE SERVICE.

The last Legislature passed a measure (chapter 307, Acts of 1910) which directed that suitable quarters be set apart at this hospital for the observation and temporary care, pending examination and commitment, of persons suffering from mental disorders who should come under the care of the police in the city of Boston. In compliance with this direction the Butler building, containing two wards, each with a capacity for 10 patients, was emptied by transfer of that number to other wards, and on May 1 was ready for the reception of these cases, — one ward for men and one for women.

This wise and humane provision for immediate beginning of

a portion of the service which the psychopathic hospital will render to the community has met an urgent need, and has been of incalculable benefit to a large number of sick persons who would otherwise have been, of necessity, confined in a police station or jail for a longer or shorter period, awaiting commitment and transfer. Under authority of the above enactment such patients are now brought directly to the hospital at any hour of the day or night, and receive at once the care and treatment their condition demands. With willing and intelligent co-operation on the part of the police department, this method has worked smoothly, and in only a few instances have we felt called upon to reject as unsuitable cases the patients who were presented. After an experience of seven months, covering the reception of nearly 200 cases, there can be no doubt that the prompt relief thus afforded operates to cut short incipient attacks, to moderate others and to shorten the period of treatment necessary in a large proportion, besides protecting the patients from needless suffering and distress.

Some statistics of this service are included in Table No. 1, to be found elsewhere in this report, but a more satisfactory review of its operations for the seven months to December 1 is presented in the following tabulation:—

	Males.	Females.	Totals.
Admissions from May 1 to Dec. 1, 1910,	115	83	198
Chapter 504, Acts of 1909, section 34,	—	1	1
Chapter 504, Acts of 1909, section 42,	4	4	8
Chapter 504, Acts of 1909, section 43,	3	3	6
Chapter 504, Acts of 1909, section 44,	5	11	16
Chapter 307, Acts of 1910,	103	64	167
Discharges from May 1 to Dec. 1, 1910,	113	79	192
Recovered,	22	8	30
Improved,	5	2	7
Unimproved,	2	—	2
Died,	—	2	2
Not insane,	3	8	11
Deported,	2	—	2
Committed to Boston State Hospital,	31	37	68
Committed to Danvers State Hospital,	23	10	33
Committed to Worcester State Hospital,	6	4	10
Committed to Westborough State Hospital,	9	4	13
Committed to Taunton State Hospital,	1	1	2
Committed to Monson State Hospital,	1	—	1
Committed to McLean Hospital,	1	—	1
Committed to Butler Hospital, Providence, R. I.,	1	—	1
Returned to Boston State Hospital,	1	—	1
Returned to Medfield State Asylum,	2	—	2
Returned to Worcester State Hospital,	2	1	3
Returned to Westborough State Hospital,	1	1	2
Returned to Monson State Hospital,	—	1	1
Patients remaining Dec. 1, 1910,	2	4	6

Provisional Diagnosis in Temporary Care Cases.

	Males.	Females.	Totals.
Admissions from May 1 to Dec. 1, 1910,	115	83	198
Senile psychoses,	3	3	6
General paralysis,	20	4	24
Cerebral thrombosis,	—	1	1
Cerebral concussion,	1	—	1
Alcoholic psychoses:—			
Pathological intoxication,	1	2	3
Delirium tremens,	5	2	7
Polyneuritic psychosis,	1	—	1
Acute hallucinosis,	20	10	30
Chronic delusional,	3	—	3
Chronic alcoholism,	1	—	1
Drug and toxic psychoses:—			
Morphinism,	1	—	1
Food toxicosis,	1	—	1
Involution melancholia,	4	2	6
Dementia præcox,	21	20	41
Paranoic conditions,	3	5	8
Manic-depressive psychosis:—			
Excitement,	13	17	30
Depression,	6	4	10
Epileptic psychoses,	2	1	3
Epilepsy,	3	2	5
Imbecility with insanity,	1	—	1
Constitutional inferiority,	2	—	2
Not insane,	3	9	12
Apoplexy,	—	1	1

MEDICAL SERVICE.

The following changes have occurred in the personnel of the medical staff:—

Dr. Samuel W. Crittenden was promoted to be assistant superintendent January 1. Dr. Stephen E. Vosburgh was appointed assistant physician April 1. Dr. Myrtelle M. Canavan was appointed pathologist October 1. Dr. Harry M. Nicholson was appointed junior assistant physician October 1. Dr. George H. Maxfield, first assistant physician, resigned November 15 to accept the position of surgeon to the Soldiers' Home in Chelsea, a well-deserved promotion. Dr. Arthur B. Moulton, formerly of the Northampton State Hospital staff, has been secured for temporary service until the vacancy caused by Dr. Maxfield's resignation shall be filled.

Regular staff meetings have been inaugurated for the presentation of cases for diagnosis, discussion of treatment, determination of the question of discharge, etc. A systematic record of the proceedings is kept, which proves extremely useful, especially in cases which are brought up for further discussion at a later meeting, as is often done.

The medical officers have had additional duties imposed upon them in consequence of the temporary care service, the inauguration of staff meetings, more extended case histories with preparation of abstracts for discussion of these, more lectures to the training school, and, latterly, the care of the nurses and other employees ill with typhoid fever. The lack of a pharmacist, too, makes necessary their performance of routine work which interferes with more important activities. The recent addition to the staff of a junior assistant physician has given needed assistance in the clinical work, and the opening of a well-equipped bacteriological and pathological laboratory toward the close of the year, with a skilled and enthusiastic worker in charge of this department, puts the medical work on a higher level, and, like the staff meetings, promotes keener interest and a progressive scientific spirit. That advantage is taken of the new facilities afforded by the laboratory is shown by the more frequent employment of diagnostic aids, such as blood examinations and lumbar puncture, also by the increased number of autopsies obtained; of these there have been 12 during the year, 5 of them in the past two months.

As a further aid to the medical staff, considerable additions have been made to the list of journals and reviews, and the medical library has had some needed accessions.

The services of a dentist, Dr. Howard A. Lane, have been secured for one forenoon each week, and this very essential part of the care and treatment of the patients is being well attended to.

NURSING SERVICE.

During the year an important measure discussed in the previous annual report — shortening the hours of duty — was put into effect, and, though the change entails an added expense of several thousands of dollars a year, the cost is more than repaid by the increased efficiency and the better spirit it has engendered in the corps. Each attendant and nurse under the existing arrangement has one full day off duty each week, and in addition has hours off daily, reducing the actual time on duty to sixty hours a week. If we can now supply these employees, upon whose capacity and devotion to duty the welfare of the

patients so directly depends, with more comfortable living quarters, well separated from the wards, all necessary requirements for the maintenance of a stable, efficient and loyal nursing force will have been met.

TRAINING SCHOOL.

The training school for nurses remains under the same efficient management as for some years past, and continues its important work with gratifying success. Some additions have been made to the curriculum and more definition given the schedule of work and study, but the most important change to be recorded is the extension of its privileges to the men attendants, several of whom have been induced to undertake the course. This very desirable extension of the school's usefulness was made possible, I think, by the gradual introduction of women nurses in the wards for male patients, where their influence prevails to stimulate the nursing spirit and give new interest to what is, under routine conditions, apt to be considered by the men as mere drudgery.

Another thing which has, I am sure, bettered the service in the men's department is the setting apart of a small ward for the reception and special care of new admissions. Not only has this made it possible to give the acute cases better attention, it has emphasized to the attendants the importance of the hospital feature, and demonstrated the need of special training, for which an awakened interest creates desire.

A special course of training has been instituted which is obligatory for those attendants who do not care to take the full course in the training school. This consists of a series of lectures and demonstrations covering the essentials of nursing, and in particular the care of the insane, with systematic instruction in practical duties in the wards.

OCCUPATION OF PATIENTS.

An earnest effort has been made to provide a variety of useful and stimulating occupation for the patients. A large party of men from the wards for the demented and untidy and disturbed classes has been engaged all the season in excavating,

grading, digging ditches, laying drain pipe, repairing roads, etc., accomplishing a creditable amount of work, and undergoing themselves an improvement in health, habits and mental condition which was very notable in some and sufficient to be gratifying in practically all. The farmer has had more patients for his work, and all other working departments have been kept well supplied. An upholsterer was employed and installed as shop foreman to develop a line of industries having as its nucleus mattress making, which has heretofore been conducted on a smaller scale. He has taught 3 patients to make mattresses; 6 or 8 prepare the hair; 1 repairs shoes; another helps to make cushions, cut and fit curtains, etc. It is hoped that we can now add to these activities broom and mat making, and then other industries as rapidly as they can be gotten under way. In the women's department the force of seamstresses has been augmented both in the sewing room and in the wards, and in addition an industrial room is filled with patients engaged in fancy work, basketry, making artificial flowers, etc., — employments which give them pleasure and afford mental stimulation of decided therapeutic value. Many of the women, too, had healthful outdoor work during the summer, as in previous years, gathering the fruits and vegetables daily from the garden.

ENTERTAINMENT OF PATIENTS.

In addition to the fortnightly dances from October to May, and occasional entertainments in the chapel, principally concerts, the women patients have enjoyed several picnics and a number of tea parties, card parties, ward musicales, etc., sleigh rides during the winter, and, during the summer, carriage and automobile rides.

The patients, both men and women, were assembled for a Christmas entertainment, consisting of a musical program, gaily decorated tree and a distribution of presents, provided in part by their friends and in part by the hospital.

On July 4 a band concert was given at each department, which was greatly enjoyed by the entire population. A graphophone was purchased and is kept in circulation, enlivening

each ward in turn. The men make constant use of three pool tables, and many devote themselves to cards and other games. More than one hundred books have been added to the patients' library, and a number of old volumes have been rebound. A generous list of magazines and illustrated weeklies is subscribed for, and these are distributed throughout the wards. A smoking and recreation room for patients is being fitted up in the basement of the men's department.

Thanksgiving was, as usual, observed with an appropriate feast.

REPAIRS AND IMPROVEMENTS.

Painting has gone steadily forward. At the women's department the C and E buildings were painted outside and inside, the bakery and kitchen inside, the sewing room and the front and back corridors, the office entrance, a corridor in Ward B and the laboratory. At the men's department the interior of the wards was completed, with the exception of Ward 5 rear, and the center corridor and general dining room, the connecting corridors to the wards, the kitchen and the attendants' and other employees' quarters in the third stories were painted, besides painting and whitewashing in the basements and some work in the farmhouse. At the barn the milk room received attention. The superintendent's house was painted outside and some interior work was done.

The wooden walk to Austin Street was relaid, largely with new material; a fence was built around the pond as a protection against patients jumping in; window openings were enlarged and two cement areas built to provide better light for the laboratory in the Stedman basement; tables and shelving were made and installed in these rooms and gas introduced from Harvard Street; the old barns were repaired; a shelter house for fire hose was constructed; additional bathtub, closet and washbowls put in nurses' quarters in E attic; a bath room was equipped at the farmhouse and hot-water heater installed in the basement; a new hot-water heater was put in the superintendent's house and the porch there was rebuilt.

A separate dining room for the men attendants was provided by structural alterations in quarters adjoining the patients'

dining room, a serving room for the officers' table was similarly contrived out of a storeroom, and the main serving room was improved with new cupboards and sink. In the kitchen at the men's department the floor drains were cleaned out, lined with cement and covered with iron plates, and the discharge pipes from the sink and other fixtures were suspended in them by rod hangers, remedying a very unsanitary condition there.

The engineer has continued the work of shortening and straightening returns and insulating pipes, effecting thereby a saving of several thousand dollars in the cost of coal for the year; and in addition his force has attended to many ordinary repairs, as have the other departments.

The New England Telephone and Telegraph Company installed a private branch exchange in the women's department, connecting with the men's department over a line of poles erected and owned by the hospital. This adds greatly to the ease and promptness of intercommunication, and facilitates the business of all who have occasion to telephone to the hospital. A better system of house phones is badly needed in both departments and should be provided next year.

FARM AND GROUNDS.

Excellent crops were obtained notwithstanding the dry season. The tables were abundantly supplied with vegetables, and we have stored 3,000 bushels of potatoes, besides quantities of turnips, beets, carrots, squash, pumpkins, cabbage and celery; also 200 tons of hay and 190 tons of ensilage for the stock.

The herd of cows was tested for tuberculosis by the State Cattle Bureau, and eleven animals found to be diseased were condemned and slaughtered. The cow stable was then thoroughly disinfected and whitewashed throughout; it is practically unfit for further use, however, and plans should be made for a new one as soon as possible.

A power sprayer was bought and energetic work continued against the gypsy and brown-tail moths, with excellent results, our trees showing little evidence of their activity at any time during the season. The expense of this item for the year, including the sprayer, did not exceed the sum spent the previous

year, when it was done by a contractor; and next year it will, of course, be much less. Much has been done to improve the appearance of the grounds. The old house and barns on the Callahan property, acquired last year, were torn down, the whole lot cleaned up and put under cultivation, and a dilapidated stone wall separating it from the hospital lawn removed. Several lines of farm fencing should be put up next year, and a beginning, at least, should be made on a suitable boundary wall or fence, for which a design has been adopted by the Board. This it is expected can be done by our regular mason at a very moderate cost, suitable stone being at hand.

The sewer division of the city street department is completing the work begun last year of deepening and widening the brook channel through the hospital property, which will render possible the effective drainage of our lowland and bring a large area of marsh under cultivation. The farmer has men and teams at work now clearing this land and laying drains.

MAINTENANCE EXPENSES.

The amount expended for maintenance was \$213,544.77, which, divided by the daily average number of patients, 827.93, makes the weekly per capita cost \$4.946. Receipts for board of private patients were \$18,896.21; from reimbursing patients, \$6,574.23; from sales and other sources, \$2,246.59, making the total income \$27,717.03.

Deducting receipts from gross expenses, the net cost of maintenance was \$185,827.74, which, divided by the above average number of patients, gives a net weekly per capita cost of \$4.302.

The gross expenses exceeded those of the previous year by \$21,564.02, which was in accordance with the estimates, and for which an explanation was furnished in last year's report.

For the coming year the expense of maintenance is estimated at \$223,600. This is an increase of \$10,050, which is due to the following causes: 26 more patients to be cared for; additional officers and employees, to meet the greater demands of improved service under conditions of shorter working hours; the temporary care service, pending completion of the psycho-

pathic hospital; maintenance of the sixty-hour-a-week schedule for employees a full year instead of six to eight months, the period for which it was in operation the current year.

ALTERATIONS, ADDITIONAL BUILDINGS AND EQUIPMENT.

One of the earliest recommendations made by the Board of Trustees related to the need of certain structural alterations in the ward buildings at the men's department, to utilize waste space and convert gloomy and ill-ventilated sections into cheerful, well-lighted quarters for patients. This can easily be done, and while providing additional accommodations at a very low per capita cost, the appearance of the wards will be greatly improved.

In order to do away with the expense of maintaining two electric light and power plants, and to provide for the extension of lighting current to projected new buildings, it is considered essential that a change be made eventually from the direct current to the alternating system. As a step in that direction, and as the wisest measure to provide for immediate needs, a plan is presented for the installation of two alternating current generators and a small motor generator set, with the necessary transformers and wire connections. This has been worked out, with your approval, after careful consideration, and on the advice of competent engineers who have studied our problem.

The present bakery will be totally inadequate to supply the institution when increased by the completion of the infirmary group and the psychopathic hospital, now under construction. Our facilities for cold storage of food stuffs are practically *nil*; the ice from the pond is unfit for use in drinking water; we have cramped and inconvenient quarters for general stores in the basement of an old wooden building which should soon be torn down to give place to a modern ward building. To provide these needs your directions have been followed in the preparation of plans for a service building to contain a bakery, a cold-storage and ice-making plant, and general stores, with basement bins for the storage of vegetables.

A home for men attendants is a most urgent need which has already been referred to. The projected farmstead group

should be begun by the erection of two dormitories and a service building, the latter to contain the patients' baths, sitting room and dining room, together with dining room and sleeping quarters for employees.

It is regretted that plans for a new cow barn, which is badly needed, could not be prepared in time for presentation this year.

Your Board has approved plans, specifications and estimates for the above items, and these have been presented to the Auditor of the Commonwealth for submission to the Governor and Council and to the Legislature, with your petition for appropriations as follows:—

Alterations in south dormitory building, men's department,	\$6,000
Home for male attendants and nurses,	22,000
Farm group, comprising central service building, two dormitory buildings and heating plant,	83,000
Service building, comprising general stores, cold storage and bakery,	42,000
Addition to electric light and power plant,	13,875
<hr/>	
Total,	\$166,875

Grateful acknowledgment is made of the kindness of friends who have donated their services for the entertainment of patients; namely, to Dr. Dixwell and his associates of the Hospital Music Association and to the Dorchester Woman's Club; also to our officers and employees who have exerted their talents to the same end. Magazines and other reading matter for the wards, most acceptable gifts, have been received through the kindness of Mr. and Mrs. Frank F. Stone, Dr. Walter Channing and the Hospital Newspaper Society. Religious services have been regularly conducted by Rev. Father McCafferty and Rev. Charles S. Otto, to whom our thanks are due for their ministrations.

For myself, I cannot express the gratitude I feel for the loyal co-operation of the officers and employees, whose faithful performance of duty and cheerful spirit have at all times

lightened the load of administration and helped in overcoming difficulties; while to you I am indebted for ready appreciation of my efforts and uniform support and encouragement, as well as for wise counsel and direction.

Respectfully submitted,

HENRY P. FROST,

Superintendent.

Nov. 30, 1910.

REPORT OF THE DIPHTHERIA INVESTIGATION FOR THE BOSTON STATE HOSPITAL.

The diphtheria epidemic at the Boston State Hospital during the spring and summer of 1909 suggested several lines of work upon bacillus diphtheriæ and diphtheroid organisms. The investigation, which was undertaken at the instance of Dr. E. E. Southard, has been pursued intermittently from July, 1909, to the present time. Its scope has enlarged as interesting and important problems have suggested themselves in the course of the work.

The main problem at the present time is the study of the group of diphtheria bacilli by the biometrical or statistical method. This method, which, briefly stated, involves the comparative study of a large number of cultures, has recently been applied with great success to the coccaceæ,¹ and has enabled a natural classification of the numerous members of this family to be made. It is expected that this method will prove of equal value when applied to the diphtheria bacillus to determine whether or not divisions or subfamilies exist within the group, and also the relationship, so called, of the "pseudo-diphtheria" and "diphtheroid" bacilli to the true Klebs-Loeffler organism. The latter question, which is one of the perennial discussions in bacteriology, can be decided with certainty by this method.

One hundred and twenty-one strains of diphtheria and diphtheroid bacilli have been studied. These have been obtained from the Boston State Hospital, the Danvers Hospital and from other sources, through the courtesy of various individuals, among whom may be especially mentioned Dr. B. L. Arms and Miss E. Marion Wade of the bacteriological laboratory of the Boston Board of Health.

¹ "The Systematic Relationship of the Coccaceæ," by C. E. A. Winslow and Ann Rogers Winslow, 1908.

The plan of work has been to determine what are the characteristics of most value in the identification of the diphtheria bacillus, and then to study the selected characteristics by exact and comparable methods in a long series of cultures.

The tests which have been found most suitable, and to which each strain has been, or is to be, subjected, are:—

(1) Morphology, including the development of involution forms and of Neisser's granules. The peculiarities of shape and the early development of polar granules and involution forms are very distinctive features of the true diphtheria bacillus, which, however, may be more or less closely imitated by the pseudo-diphtheria and diphtheroid organisms.

(2) Vigor of growth and longevity of the organisms in cultures. The more strictly parasitic an organism the scantier is its growth, as a rule, and the shorter its life in cultures.

(3) Chromogenesis. Many diphtheroids and some true diphtheria bacilli form pigment.

(4) Virulence, determined by inoculation into guinea pigs. The Klebs-Loeffler bacillus, when freshly isolated from clinical cases of diphtheria, usually proves virulent (*i.e.*, kills the guinea pig within three days when injected in suitable doses), but numerous nonvirulent strains also exist. The diphtheroids are almost without exception nonvirulent.

(5) The quantitative determination, by titration, of acid-production by these organisms in dextrose, lactose, mannite, saccharose and dextrin broth. Of these, only dextrose and saccharose have given uniform results; the reactions with the other carbohydrates are too variable to be of value. It may be advisable later to try the fermentative powers with other substances.

(6) Toxin production. The formation of a toxin capable of being neutralized by diphtheria antitoxin is par excellence a distinctive characteristic of the true Klebs-Loeffler bacillus, separating it from superficially similar organisms. The testing of each organism for toxin production is, however, very laborious and expensive, involving, as it does, animal experimentation in each case. In a number of trials which we have made we have found no toxin formation by pseudos or diphtheroids.

(7) Serum reactions. These are considered by some inves-

tigators to be the most delicate of all means of determining the relationship of bacteria. In this work only agglutination has been tried up to the present time, but it is planned to test later the fixation of complement and the con-agglutination reaction. The results of the agglutination tests have been quite satisfactory, in spite of technical difficulties in getting homogeneous suspensions of diphtheria bacilli. True diphtheria bacilli have given positive reactions (by the macroscopic method) in high dilutions ($\frac{1}{2200}$) of serum from a rabbit immunized against *B. diphtheriæ*, while pseudo and diphtheroid organisms show no clumping, even in low dilutions. It is possible that the agglutination test with anti-diphtheritic serum may prove to be a diagnostic procedure of some importance by furnishing a quick and easy way of distinguishing the true Klebs-Loeffler bacillus.

The data already accumulated have been analyzed statistically and the results plotted. The organisms seem already to be grouping themselves, but the number of strains thus far investigated is so small that it would be premature to announce results at this time.

Recently, as a side issue, some work has been started, at the suggestion of Dr. Walter R. Brinckerhoff of the Harvard Medical School, on the restoration of virulence of cultures of *B. diphtheriæ*, which have spontaneously become attenuated, by growing them with amebæ.

It was hoped during this work to investigate a diphtheroid organism called by Ford Robertson of Edinburgh *B. paralyticans*, and claimed by him to be of importance in the etiology of general paresis. As yet no opportunity to do this has presented itself, but the question of diphtheroid organisms in general in insane hospitals is a matter of importance and should be investigated.

During the coming winter it is hoped to continue the work by adding to the number of strains studied in the routine manner, and especially to investigate the immunity reactions of the group. It is expected that by the end of another six months results of value may be ready to publish.

M. E. MORSE.

SUPERINTENDENT OF NURSES' REPORT,

To the Superintendent of the Boston State Hospital.

The eleventh annual report of the Training School for Nurses is herewith respectfully submitted: —

Graduating Class of 1910.

Christine A. Johnston.	Ellen B. McMullin.
Jessie G. Bruce.	Mary B. MacDonald.

Nursing Staff.

Superintendent of nurses,	1
Assistant superintendent of nurses (graduate),	1
Supervisors, day (graduates),	3
Supervisor, night (graduate),	1
Head nurses (graduates),	5
Head nurses (pupils),	8
Night nurses (pupils),	8
Night nurses (attendants),	5
Pupils, day,	22
Probationers,	10
Attendants,	17
Applications during the year,	353
Applications accepted,	86
Probationers accepted,	23
Pupils left,	7
Probationers rejected,	24

The training school has graduated 4 nurses during the year, making a total of 68 nurses since it was organized. Seventeen of our graduates have resigned during the year, 11 of whom have entered a general hospital for a post-graduate course, 5 are doing private nursing and 1 resigned on account of ill health.

Owing to the change to ten-hour service on the wards, we

VALUATION.

Nov. 30, 1910.

Buildings and 153 acres land taken from the city of Boston Dec. 1, 1908,	\$1,000,000 00	
79 acres land taken Oct. 1, 1909, assessed for,	62,710 00	
2 $\frac{1}{2}$ acres land purchased Nov. 3, 1909, for psychopathic hospital,	75,919 20	
Amount paid on new buildings and additions: —		
Infirmary,	14,726 98	
Laundry,	6,139 42	
Butler,	4,211 73	
		\$1,163,707 33
Provisions and groceries,	\$4,391 72	
Clothing and clothing materials,	10,711 83	
Furnishings,	47,514 05	
Heat, light and power: —		
Fuel,	1,680 48	
Repairs and improvements: —		
Machinery and mechanical fixtures,	20,620 00	
All other property,	4,773 34	
Farm, stable and grounds: —		
Live stock on farm,	8,078 60	
Produce of farm on hand,	7,865 05	
Carriages and agricultural implements,	4,586 15	
All other property,	1,868 74	
Miscellaneous,	2,412 32	
		112,502 28
		<u>\$1,276,209 61</u>

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending November 30, 1910:—

CASH ACCOUNT.			
Balance Dec. 1, 1909,	.	.	\$982 79
<i>Receipts.</i>			
<i>Institution Receipts.</i>			
Board of inmates:—			
Private,	.	\$18,896 21	
Reimbursements,	.	6,574 23	
		<hr/>	\$25,470 44
Salaries, wages and labor:—			
Wages not called for,	.		4 93
Sales:—			
Food,	.	\$775 30	
Clothing and materials,	.	65 45	
Furnishings,	.	27 36	
Heat, light and power,	.	1 05	
Repairs and improvements,	.	88 71	
Miscellaneous,	.	3 19	
		<hr/>	961 06
Farm, stable and grounds:—			
Cows and calves,	.	\$532 69	
Pigs and hogs,	.	334 78	
Hides,	.	17 50	
Sundries,	.	7 79	
		<hr/>	892 76
Miscellaneous receipts:—			
Interest on bank balances,	.	\$169 75	
Rent,	.	177 00	
Sundries,	.	41 09	
		<hr/>	387 84
			<hr/>
			27,717 03
<i>Receipts from Treasury of Commonwealth.</i>			
Maintenance appropriations:—			
Balance of 1909,	.	\$7,666 41	
Advance money (amount on hand November 30),	.	15,000 00	
Approved schedules of 1910,	.	191,340 52	
		<hr/>	214,006 93
Special appropriations,	.		34,498 73
			<hr/>
Total,	.		\$277,205 48

Payments.

To treasury of Commonwealth, institution receipts,	\$27,717 03	
Maintenance appropriations: —		
Balance November schedule, 1909,	8,649 20	
Eleven months' schedules, 1910,	191,340 52	
November advances,	11,091 52	
	<hr/>	\$238,798 27
Special appropriations: —		
Approved schedules,		34,498 73
Balance Nov. 30, 1910: —		
In bank,	\$3,524 67	
In office,	383 81	
	<hr/>	3,908 48
		<hr/>
Total,		\$277,205 48

MAINTENANCE.

Appropriation,	\$213,550 00
Expenses (as analyzed below),	213,544 77
	<hr/>
Balance reverting to treasury of Commonwealth,	\$5 23

Analysis of Expenses.

Salaries, wages and labor: —	
General administration,	\$29,433 16
Medical service,	9,063 50
Ward service (male),	15,340 10
Ward service (female),	22,546 58
Repairs and improvements,	7,060 02
Farm, stable and grounds,	8,951 88
	<hr/>
	\$92,395 24
Food: —	
Butter,	\$3,234 99
Butterine,	3,155 49
Beans,	694 53
Bread and crackers,	192 76
Cereals, rice, meal, etc.,	905 31
Cheese,	678 73
Eggs,	4,393 94
Flour,	5,974 40
Fish,	1,826 11
Fruit (dried and fresh),	1,610 66
Meats,	12,845 87
Milk,	24 24
Molasses and syrup,	189 28
Sugar,	4,322 08
Tea, coffee, broma and cocoa,	1,976 72
Vegetables,	526 56
Sundries,	2,278 02
	<hr/>
	44,829 69
	<hr/>
Amount carried forward,	\$137,224 93

Amount brought forward, \$137,224 93

Clothing and materials: —

Boots, shoes and rubbers,	\$1,486 11
Clothing,	3,917 02
Dry goods for clothing and small wares,	2,064 85
Furnishing goods,	264 86
Hats and caps,	97 82
Leather and shoe findings,	33 39
Sundries,	50

7,864 55

Furnishings: —

Beds, bedding, table linen, etc.,	\$9,396 77
Brushes, brooms,	381 94
Carpets, rugs, etc.,	925 30
Crockery, glassware, cutlery, etc.,	1,239 86
Furniture and upholstery,	2,760 25
Kitchen furnishings,	961 47
Wooden ware, buckets, pails, etc.,	160 71
Sundries,	2,075 05

17,901 35

Heat, light and power: —

Coal,	\$13,761 36
Oil,	17 43
Sundries,	470 24

14,249 03

Repairs and improvements: —

Brick,	\$69 01
Cement, lime and plaster,	235 34
Doors, sashes, etc.,	157 44
Electrical work and supplies,	676 25
Hardware,	624 94
Lumber,	901 16
Machinery, etc.,	204 68
Paints, oil, glass, etc.,	2,142 46
Plumbing, steam fitting and supplies,	2,043 25
Roofing and materials,	20 87
Sundries,	503 38

7,578 78

Farm, stable and grounds: —

Blacksmith and supplies,	\$610 07
Carriages, wagons, etc., and repairs,	1,211 39
Fertilizers, vines, seeds, etc.,	609 68
Hay, grain, etc.,	5,104 10
Harnesses and repairs,	289 22
Horses,	775 00
Cows,	1,199 50
Other live stock,	139 00
Tools, farm machines, etc.,	1,379 20
Sundries,	2,455 78

13,772 94

Amount carried forward, \$198,591 58

Amount brought forward, \$198,591 58

Miscellaneous: —

Books, periodicals, etc.,	\$268 78
Chapel services and entertainments,	1,510 76
Freight, expressage and transportation,	74 23
Gratuities,	202 12
Hose, etc.,	498 71
Medicines and hospital supplies,	1,908 48
Medical attendance, nurses, etc. (extra),	852 48
Manual training supplies,	23 82
Postage,	233 52
Printing and printing supplies,	436 59
Printing annual report,	137 67
Return of runaways,	8 75
Soap and laundry supplies,	2,067 84
Stationery and office supplies,	514 95
Travel and expenses (officials),	220 91
Telephone and telegraph,	587 43
Tobacco,	632 25
Water,	4,315 45
Sundries,	458 45
	<hr/>
	14,953 19
	<hr/>
Total expenses for maintenance,	\$213,544 77

SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1909,	\$518,974 08
Appropriations for fiscal year,	358,000 00
	<hr/>
Total,	\$876,974 08
Expended during the year (see statement annexed),	34,498 73
	<hr/>
Balance Nov. 30, 1910,	\$842,475 35

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$3,908 48
November cash vouchers (paid from advance money),	11,091 52
Due from treasury of Commonwealth account	
November, 1910, schedule,	7,204 25
	<hr/>
	\$22,204 25

Liabilities.

Schedule of November bills,	\$22,204 25
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Special Appropriations.

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Expended to Date.	Balance at End of Year.
For the purpose of establishing in the city of Boston a hospital for the first care and observation of mental patients and the treatment of acute and curable mental diseases,	Acts 1909, chap. 470,	\$600,000 00	\$9,420 60	\$90,446 52	\$509,553 48
Butler building addition,	Acts 1910, chap. 644,	39,000 00	4,211 73	4,211 73	34,788 27
Infirmary,	Acts 1910, chap. 644,	275,000 00	14,726 98	14,726 98	260,273 02
Laundry,	Acts 1910, chap. 644,	44,000 00	6,139 42	6,139 42	37,860 58
		\$958,000 00	\$34,498 73	\$115,524 65	\$842,475 35

Respectfully submitted,

WILLIAM E. ELTON,

Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

WARREN A. MERRILL,

Assistant Supervisor of Accounts.

LIST OF PERSONS

REGULARLY EMPLOYED AT THE BOSTON STATE HOSPITAL.

Superintendent (per year),	\$3,000 00
Assistant superintendent (per year),	1,800 00
First assistant physician (per year),	1,500 00
Assistant physician (per year),	1,000 00
Assistant physician (per year),	1,000 00
Assistant physician (per year),	900 00
Junior assistant physician (per year),	600 00
Pathologist (per year),	1,000 00
Treasurer and steward (per year),	1,800 00
Chief engineer (per year),	1,440 00
Farmer (per year),	1,200 00
Assistant farmers (2) (per month),	\$35 00 to 45 00
Gardener (per month),	45 00
Matron (per month),	40 00
Superintendent of nurses (per year),	800 00
Assistant superintendent of nurses (per month),	45 00
Stenographers (4) (per month),	\$30 00 to 78 00
Clerk (per month),	50 00
Office attendants (2) (per month),	\$20 00 and 30 00
Telephone operators (2) (per month),	\$20 00 and 30 00
Seamstresses (2) (per month),	30 00
Laundryman (per month),	40 00
Laundry teamster (per month),	30 00
Laundress (per month),	40 00
Laundresses (8) (per week),	\$4 00 to 5 00
Baker (per month),	60 00
Storekeeper (per month),	50 00
Supervisor (man) (per month),	55 00
Supervisors (women, 4), (per month),	35 00
Assistant supervisors (men, 2), (per month),	\$35 00 and 45 00
Attendants (men, 52), (per month),	\$25 00 to 40 00
Nurses and attendants (women, 75), (per month),	\$20 00 to 30 00
Night watchmen (2) (per month),	\$35 00 and 50 00
Cooks (men, 2) (per month),	\$55 00 and 70 00
Cooks (women, 3) (per month),	25 00
Assistant cook (man) per month),	40 00

Table girls (6) (per week),	\$4 00
Chambermaid (per week),	4 00
Kitchen girl (per week),	4 00
Painter (per week),	17 55
Assistant painters (3) (per week),	15 00
Carpenters (2) (per week),	17 55
Assistant carpenters (2) (per week),	15 00
Upholsterer (per week),	12 00
Assistant engineers (7) (per week),	21 00
Assistant engineer, with board and lodging (per week),	17 55
Firemen (4) (per week),	17 50
Stablemen (2) (per week),	\$6 90 and 10 05
Expressman (per week),	12 40
Herdsmen (per month),	45 00
Porters (2) (per month),	30 00
Mason (per month),	80 00
Teamsters (4) (per month),	\$28 00 and 30 00
Farm hands (7) (per month),	30 00
Poultryman (per month),	20 00

PRODUCTS OF THE FARM AND GARDEN.

GARDEN PRODUCTS.

Asparagus, 8 boxes,	\$36 00
Beans, shell, 21 bushels,	26 25
Beans, string, 182 bushels,	136 50
Beets, 165 bushels,	99 00
Beets, 47 bunches,	2 35
Beet greens, 210 bushels,	73 50
Cabbage, 6,750 heads,	270 00
Carrots, 164 bushels,	98 40
Cauliflower, 50 boxes,	50 00
Celery, 130 boxes,	130 00
Corn, green, 862 bushels,	646 50
Cucumbers, 3 boxes,	4 50
Dandelions, 6 bushels,	4 50
Egg plant, 1 barrel,	2 50
Kale, 37 bushels,	11 10
Kohl-rabi, 15 bushels,	7 50
Lettuce, 451 boxes,	338 25
Mangel-wurzel, 400 bushels,	100 00
Onions, 31 bushels,	26 35
Parsley, 6 bushels,	3 00
Parsnips, 108½ bushels,	108 50
Peas, 46¼ bushels,	46 25
Pepper grass, 22 bunches,	44
Peppers, 2 bushels,	1 50
Potatoes, 3,133 bushels,	2,193 10
Potatoes, small, 120 bushels,	18 00
Pumpkins, 1,178 pounds,	35 34
Radishes, 220 dozen,	55 00
Rhubarb, 6,360 pounds,	127 20
Spinach, 174½ bushels,	69 80
Squash, winter, 160 barrels,	240 00
Squash, summer, 6 barrels,	6 00
Scullions, 3¼ bushels,	2 44
Tomatoes, ripe, 758 bushels,	568 50
Tomatoes, green, 61½ bushels,	30 75
Turnips, white, 256 barrels,	320 00
Turnips, ruta-baga, 136 barrels,	170 00

Apples, 91 barrels,	\$273 00
Currants, 629 boxes,	69 19
Pears, 23 bushels,	40 25
Plums, 180 boxes,	54 00
Raspberries, 53 boxes,	10 60
Strawberries, 2,225 boxes,	222 50
Cherries, 26 boxes,	2 60
<hr/>	
Total,	\$6,731 16

FARM PRODUCTS.

Ensilage, 200 tons,	\$1,000 00
Fodder, green, cabbage, 22 tons,	110 00
Fodder, green, corn, 30 tons,	150 00
Fodder, green, clover and alfalfa, 164 tons,	1,148 00
Fodder, green, millet, 30 tons,	150 00
Fodder, green, oats, barley and peas, 58 tons,	290 00
Fodder, green, rye, 25 tons,	125 00
Hay, English, 224 tons,	4,704 00
Hay, meadow, 26 tons,	260 00
Rye straw, 2 tons,	48 00
Rowen, 4 tons,	48 00
Beef, 3,821 pounds,	267 47
Milk, 191,409 quarts,	11,484 54
Pork, 18,469 pounds,	1,846 90
Ice, 800 tons,	2,400 00
Sale of condemned cows, hides, calves and tallow,	554 19
Sale of condemned hogs, pork trimmings, etc.,	334 78
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Total,	\$24,920 88
Garden products,	\$6,731 16
Farm products,	24,920 88
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Total,	\$31,652 04

STATISTICAL TABLES.

[FORM PRESCRIBED BY STATE BOARD OF INSANITY.]

1. — General Statistics of the Year.

	INSANE.			VOLUNTARY, NOT INSANE.			TEMPORARY CARE.			AGGREGATES.		
	Males.		Females.	Totals.	Males.		Females.	Totals.	Males.		Females.	Totals.
Patients in the hospital Sept. 30, 1909, Viz.: regularly committed, emergency, voluntary, temporary care, Admitted within the year, Viz.: by regular commitment, emergency, voluntary, temporary care, viz.: observation, others, by transfer, from visit, from escape, Nominal admissions for discharge, Viz.: from visit, from escape, Whole number of cases within the year, Dismissed within the year, Viz.: discharged, as recovered, as capable of self-support, as improved, as not improved, as not insane, died, transferred, escaped, on visit October 1, Nominal dismissals for commitment,	.	.	.	.	.	.	.	.	.	.	.	.
	332	458	790	-	-	-	-	-	-	332	458	790
	188	299	487	-	-	-	-	-	-	259	338	597
	157	237	394	-	-	-	-	-	-	157	237	394
	4	4	8	-	-	-	-	-	-	5	5	10
	4	5	9	-	-	-	-	-	-	5	5	10
	-	-	-	-	-	-	-	-	-	3	2	5
	-	-	-	-	-	-	-	-	-	67	37	104
	2	11	13	-	-	-	-	-	-	2	11	13
	3	7	10	-	-	-	-	-	-	3	7	10
	20	35	55	-	-	-	-	-	-	20	35	55
	19	35	54	-	-	-	-	-	-	19	35	54
	1	-	1	-	-	-	-	-	-	1	-	1
	520	757	1,277	-	-	-	-	-	-	591	796	1,387
	144	282	426	-	-	-	-	-	-	207	319	526
	45	94	139	-	-	-	-	-	-	108	129	237
	14	29	43	-	-	-	-	-	-	29	36	65
	11	7	18	-	-	-	-	-	-	11	7	18
	17	36	53	-	-	-	-	-	-	24	37	61
	3	20	23	-	-	-	-	-	-	37	39	76
	-	2	2	-	-	-	-	-	-	7	10	17
	67	86	153	-	-	-	-	-	-	67	88	155
	2	2	4	-	-	-	-	-	-	2	4	6
	2	2	4	-	-	-	-	-	-	2	4	6
	28	56	84	-	-	-	-	-	-	28	56	84

2. — Insane received on First and Subsequent Commitments.

NUMBER OF COMMITMENT.	CASES COMMITTED.		
	Males.	Females.	Totals.
First to this hospital,	147	203	350
Second to this hospital,	10	26	36
Third to this hospital,	1	5	6
Fourth to this hospital,	1	7	8
Fifth to this hospital,	—	5	5
Sixth to this hospital,	1	—	1
Ninth to this hospital,	1	—	1
Total cases,	161	246	407
Total persons,	161	244	405
Never before in any hospital for insane,	139	191	330

3. — Nativity and Parentage of Insane Persons first admitted to Any Hospital.

PLACE OF NATIVITY.	MALES.			FEMALES.			TOTALS.		
	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.
Massachusetts,	58	15	18	64	16	16	122	31	34
Other New England States,	8	7	8	14	11	13	22	18	21
Other states,	8	4	3	12	10	9	20	14	12
Total native,	74	26	29	90	37	38	164	63	67
Other countries: —									
Armenia,	—	—	—	1	—	—	1	—	—
Austria,	1	1	—	1	1	1	2	2	1
Canada,	11	11	17	13	15	19	24	26	36
England,	4	4	0	3	5	6	7	0	12
France,	—	—	—	—	1	1	—	1	1
Germany,	5	10	10	5	8	7	10	18	17
Greece,	—	—	—	—	1	1	—	1	1
Holland,	—	1	—	—	—	—	—	1	—
Hungary,	—	—	—	1	1	1	1	1	1
India,	—	—	—	1	1	1	1	1	1
Isle of Malta,	—	—	—	1	—	—	1	—	—
Ireland,	28	68	60	54	89	86	82	157	146
Italy,	4	4	4	6	9	9	10	13	13
Norway,	—	1	—	1	1	1	1	2	1
Poland,	—	—	—	1	1	1	1	1	1
Portugal,	—	—	—	1	2	1	1	2	1
Roumania,	1	1	1	—	—	—	1	1	1
Russia,	2	2	2	5	0	0	7	11	11
Scotland,	4	2	2	2	3	1	0	5	3
Spain,	—	1	1	1	1	1	1	2	2
Sweden,	3	3	3	3	3	3	0	6	0
Turkey,	1	1	1	1	1	1	2	2	2
Wales,	1	1	1	—	—	—	1	1	1
Total foreign,	65	111	108	101	152	150	166	263	258
Total native,	74	26	29	90	37	38	164	63	67
Unknown,	—	2	2	—	2	3	—	4	5
Totals,	139	139	139	191	191	191	330	330	330

4. — *Residence of Insane Persons admitted from the Community.*

PLACES.	FIRST ADMITTED TO ANY HOSPITAL.			OTHER ADMISSIONS.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Massachusetts: —									
Suffolk County,	134	183	317	22	51	73	156	234	390
Essex County,	—	1	1	—	—	—	—	1	1
Middlesex County,	2	1	3	—	—	—	2	1	3
Hampshire County,	—	1	1	—	—	—	—	1	1
Norfolk County,	—	1	1	—	—	—	—	1	1
Total resident,	136	187	323	22	51	73	158	238	396
Poland,	—	1	1	—	—	—	—	1	1
Canada,	2	—	2	—	—	—	2	—	2
District of Columbia,	—	1	1	—	—	—	—	1	1
England,	1	—	1	—	—	—	1	—	1
New York,	—	—	—	—	2	2	—	2	2
Connecticut,	—	1	1	—	—	—	—	1	1
Italy,	—	1	1	—	—	—	—	1	1
Total nonresident,	3	4	7	—	2	2	3	6	9
Cities or towns 10,000 or over,	137	189	326	22	53	75	159	242	401
Country districts under 10,000,	2	2	4	—	—	—	2	2	4
Totals,	139	191	330	22	55	77	164	250	414

5. — *Civil Condition of Insane Persons first admitted to Any Hospital.*

	Males.	Females.	Totals.
Unmarried,	55	72	127
Married,	64	75	139
Widowed,	20	42	62
Divorced,	—	2	2
Totals,	139	191	330

6. — *Occupation of Insane Persons first admitted to Any Hospital.*

MALES.

Acrobat,	1	Manager,	1
Artist,	1	Milk dealer,	1
Authors,	2	None,	27
Baker,	1	Painters,	3
Barbers,	2	Peddler,	1
Bartenders,	5	Physician,	1
Cabinet-maker,	1	Printers,	3
Carpenters,	3	Salesmen,	8
Cigar-makers,	3	Shoemaker,	1
Clerks,	8	Steam-fitter,	1
Compositor,	1	Stenographer,	1
Draughtsman,	1	Students,	2
Electricians,	2	Surveyor,	1
Fireman,	1	Tailor,	1
Foreman,	1	Teacher,	1
Laborers,	37	Teamsters,	9
Lawyers,	2		
Letter carriers,	2		139
Machinists,	3		

FEMALES.

Actresses,	2	None,	40
Bookkeeper,	1	Nurses,	2
Candy-makers,	2	Opera singer,	1
Cigar-maker,	1	Saleslady,	1
Clerks,	5	Seamstress,	1
Cooks,	3	Student,	1
Domestics,	14	Tailoresses,	3
Dressmakers,	2	Teacher, school,	1
Factory girls,	3	Waitress,	1
Housework,	100		
Laundresses,	5		191
Music teachers,	2		

7. — *Ages of Insane at First Attack, Admission and Death.*

	FIRST ADMITTED TO ANY HOSPITAL.					DIED.						
	AT FIRST ATTACK.			WHEN ADMITTED.		AT FIRST ATTACK.			AT DEATH.			
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Congenital,	6	5	11	—	—	—	1	—	1	—	—	—
15 years or less,	—	—	—	—	—	—	—	—	—	—	—	—
From 15 to 20 years,	3	8	11	2	8	10	—	1	1	—	1	1
20 to 25 years,	7	12	19	7	13	20	—	—	—	—	—	—
25 to 30 years,	4	27	31	8	25	33	—	4	4	—	—	—
30 to 35 years,	17	20	37	17	20	37	5	6	11	3	3	6
35 to 40 years,	21	17	38	20	17	37	9	5	14	4	6	10
40 to 50 years,	41	34	75	37	37	74	15	9	24	16	7	23
50 to 60 years,	10	21	31	17	21	38	13	14	27	14	11	25
60 to 70 years,	20	19	39	17	23	40	12	16	28	13	20	33
70 to 80 years,	7	20	27	10	19	29	8	17	25	12	19	31
Over 80 years,	3	5	8	4	8	12	4	14	18	5	16	21
Totals,	139	188	327	139	191	330	67	86	153	67	86	153
Unknown,	—	3	3	—	—	—	—	—	—	—	—	—
Total of persons,	139	191	330	139	191	330	67	86	153	67	86	153
Mean known ages (in years),	46.27	43.35	44.81	47.02	45.33	46.17	54.42	59.07	56.75	58.01	61.65	59.80

8. — Probable Cause of Mental Disease in Persons first admitted to Any Hospital.

EXCITING CAUSES.	ADMITTED.				PREDISPOSING CAUSES.					
	Males.		Females.		HEREDITARY TENDENCY.		NEUROTIC TENDENCY.		INTEMPERANCE.	
					Males.	Females.	Males.	Females.	Males.	Totals.
Apoplexy,	1	6	7		-	-	-	-	-	1
Arteriosclerosis,	6	6	12		-	-	-	-	4	4
Burns,	-	1	1		-	-	-	-	-	-
Childbirth,	-	2	2		-	-	-	-	-	-
Congenital,	6	4	10		-	-	-	-	-	-
Consanguinity of parents,	-	1	1		-	-	-	-	-	-
Desertion,	-	1	1		-	-	-	-	-	-
Drug habit,	1	2	3		-	-	-	-	-	-
Epilepsy,	1	1	2		-	-	-	-	-	-
Fright,	-	3	3		-	-	-	-	-	-
Ill health,	6	-	1		2	-	3	-	-	-
Injury,	1	13	35		4	-	-	-	22	35
Intemperance,	22	5	5		-	-	-	-	-	-
Menopause,	-	3	2		-	-	2	-	-	-
Overwork,	3	2	2		-	-	-	-	-	-
Pregnancy,	-	29	51		-	-	-	-	-	-
Senility,	22	1	2		-	-	-	-	-	-
Surgical shock,	1	6	10		-	-	-	-	-	-
Syphilis,	4	4	4		-	-	-	-	-	-
Worry,	-	4	4		-	1	-	-	-	-
Totals,	74	89	163		6	1	5	-	26	41
Unknown,	65	102	167		2	17	4	9	-	5
Totals,	139	191	330		8	18	9	9	26	46

9. — *Probable Duration of Mental Disease before Admission.*

PREVIOUS DURATION.	FIRST ADMITTED TO ANY HOSPITAL.		
	Males.	Females.	Totals.
Congenital,	6	5	11
Less than 1 month,	36	27	63
From 1 to 3 months,	24	39	63
3 to 6 months,	13	21	34
6 to 12 months,	13	29	42
1 to 2 years,	10	22	32
2 to 5 years,	19	32	51
5 to 10 years,	5	10	15
10 to 20 years,	1	2	3
Totals,	127	187	314
Unknown,	12	4	16
Totals,	139	191	330
Average known duration (in years), . . .	1.11	1.20	1.15

10. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died.*

FORM OF DISEASE.	COMMITTED.			DISCHARGED.												DIED.			AGGREGATES.		
	Males.	Females.	Totals.	RECOVERED.		CAPABLE OF SELF-SUPPORT.		IMPROVED.		NOT IMPROVED.		NOT INSANE.		Males.	Females.	Totals.	Males.	Females.	Totals.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.									
A. — First admitted to any hospital: —																					
Manic-depressive insanity, . . .	16	46	62	5	15	20	1	2	3	4	7	—	—	10	30	40	—	—	—		
Dementia præcox, . . .	11	40	51	—	—	—	2	1	3	10	—	—	—	1	6	7	—	—	—		
Delirium, toxic, . . .	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—		
Confusional insanity, acute, . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Delirium, toxic, . . .	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Infection psychosis, . . .	3	—	3	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—		
Post-operative psychosis, . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Traumatic psychosis, . . .	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—		
Drug psychosis, . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Somatic disease psychosis, . . .	4	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Polynuritic psychosis, . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Involution psychoses: —																					
Melancholia, . . .	4	9	13	—	—	—	1	—	1	3	6	—	—	—	—	—	—	—	—		
Senile psychosis, . . .	—	20	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Senile dementia, . . .	28	24	52	—	—	—	—	3	1	4	—	—	—	19	40	59	—	—	—		
Paranoia, . . .	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Paranoid types not differentiated, . . .	—	5	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
General paresis, . . .	17	17	34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Alcoholic psychoses, acute, . . .	14	7	21	2	2	4	1	1	2	1	1	—	—	22	11	33	23	12	35		
Alcoholic psychoses, chronic, . . .	14	1	15	—	—	—	1	—	1	—	—	—	—	—	—	—	5	3	8		
Epileptic insanity, . . .	1	3	4	—	—	—	2	3	5	1	3	—	—	—	—	—	4	5	9		
Psychopathic inferiority, . . .	—	2	2	—	—	—	2	2	4	1	1	—	—	—	—	—	2	3	5		
Imbecility, . . .	6	3	9	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—		
Moral imbecility, . . .	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Not insane, . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2		
Undiagnosed, . . .	4	7	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Totals,]	139	191	330	9	18	27	9	6	15	13	20	33	3	59	74	133	94	133	227		

10. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died*
— Concluded.

FORM OF DISEASE.	COMMITTED.			DISCHARGED.												DIED.			AGGREGATES.		
				RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.					
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
B. — Other admissions: —																					
Manic-depressive insanity, . . .	11	35	46	4	11	15	2	—	2	4	4	—	—	—	—	—	—	—	6	23	29
Dementia praecox, . . .	3	15	18	—	—	—	—	—	—	3	7	10	—	—	—	—	—	—	4	12	16
Dementia, organic, . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	3
Involution psychosis: —																					
Melancholia, . . .	1	3	4	—	—	—	—	—	1	4	4	—	—	—	—	—	—	—	—	5	5
Senile dementia, . . .	1	1	2	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	3	4	7
General paresis, . . .	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2
Alcoholic psychoses, acute, . . .	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Alcoholic psychoses, chronic, . . .	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Imbecility, . . .	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epileptic insanity, . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paranoia, . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals, . . .	22	55	77	5	11	16	2	1	3	4	16	20	—	7	7	—	—	—	19	47	66
Aggregate cases, . . .	161	246	407	14	29	43	11	7	18	17	36	53	3	20	23	—	—	—	113	180	293
Aggregate persons, . . .	161	244	405	14	29	43	11	7	18	17	36	53	3	20	23	—	—	—	113	180	293

11. — Discharges of the Insane classified by Admission and Result.

NUMBER OF THE ADMISSION.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			DIED.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	12	21	33	9	6	15	15	24	39	3	16	19	1	2	3	61	81	142	101	150	251
Second,	1	4	5	-	1	1	2	7	9	-	3	3	-	-	-	5	4	9	8	19	27
Third,	1	1	2	-	-	-	-	3	3	-	-	-	-	-	-	1	1	2	2	5	7
Fourth,	-	2	2	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	4	4
Fifth,	-	1	1	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	1	2	3
Ninth,	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Totals,	14	29	43	11	7	18	17	36	53	3	20	23	1	2	3	67	86	153	113	180	293
First admissions to any hospital,	9	18	27	9	6	15	13	20	33	3	13	16	1	2	3	59	74	133	94	133	227

Cerebral hemorrhage,	5	6	11	-	1	1	-	-	-	-	5	2	7	-	-	-	-
Endocarditis,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organic heart disease,	6	12	18	-	-	-	-	-	-	-	1	2	3	-	-	-	-
Rupture of the inferior vena cava,	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Respiratory system:—																	
Broncho-pneumonia,	5	18	23	-	1	1	-	-	-	-	2	-	2	-	-	-	-
Empyæma,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hypostatic pneumonia,	3	6	9	-	1	1	-	-	-	-	1	-	1	-	-	-	-
Lobar pneumonia,	-	6	6	-	2	2	-	1	1	-	-	-	-	-	-	-	-
Pulmonary œdema,	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulmonary tuberculosis,	1	6	7	-	-	-	-	4	4	-	-	-	-	-	-	-	-
Pulmonary gangrene,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-
Digestive system:—																	
Enteritis, acute,	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ulcerative ileocolitis, acute,	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Genito-urinary system:—																	
Nephritis, chronic,	3	1	4	-	-	-	1	-	-	-	1	-	-	-	-	-	-
Accidental asphyxiation by food,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Suicide by throwing himself under loaded wagon,	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Suicide by hanging,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals,	67	86	153	1	10	11	2	6	8	10	4	14	-	2	2	1	1

Cerebral hemorrhage,	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
Endocarditis,	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Organic heart disease,	-	-	2	-	-	-	-	-	-	-	-	-	9	1	1
Rupture of the inferior vena cava, Respiratory system: —	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Broncho-pneumonia,	-	-	-	-	-	-	-	2	2	2	3	15	18	-	-
Empyema,	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Hypostatic pneumonia,	-	-	-	-	-	-	-	-	-	-	2	5	7	-	-
Lobar pneumonia,	-	-	-	-	-	-	-	-	-	-	-	3	3	-	-
Pulmonary oedema,	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-
Pulmonary tuberculosis,	-	-	-	-	-	-	1	1	-	-	-	1	1	-	-
Pulmonary gangrene,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Digestive system: —	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteritis, acute,	-	-	-	-	-	-	-	-	-	-	3	2	5	-	-
Ulcerative ileocolitis, acute,	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-
Genito-urinary system: —	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nephritis, chronic,	-	-	1	-	-	-	-	-	-	-	1	1	2	-	-
Accidental asphyxiation by food,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Suicide by throwing himself under loaded wagon,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Suicide by hanging,	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Totals,	1	-	3	-	3	-	1	1	-	4	4	22	43	65	1

	24	11	35	3	-	3	-	1	-	2	2	1	-	1	-	1	1
Cerebral hemorrhage,																	
Endocarditis,																	
Organic heart disease,				1													
Rupture of the inferior vena cava,																	
Respiratory system: —																	
Broncho-pneumonia,																	
Empyema,																	
Hypostatic pneumonia,																	
Lobar pneumonia,																	
Pulmonary oedema,																	
Pulmonary tuberculosis,												1					
Pulmonary gangrene,																	
Digestive system: —																	
Enteritis, acute,																	
Ulcerative ileocolitis, acute,																1	1
Genito-urinary system: —																	
Nephritis, chronic,																	
Accidental asphyxiation by food,									1								
Suicide by throwing himself under loaded wagon,																	
Suicide by hanging,																	
Totals,	24	11	35	3	-	3	-	1	-	2	2	1	-	1	-	1	1

13. — Duration of Mental Disease and its Treatment in Persons who recovered or died.

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.					
	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION.			WHOLE KNOWN PERIOD OF MENTAL DISEASE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
A. — Recovered: —												
Under 1 month, . . .	3	7	10	2	4	6	1	2	3	—	—	—
From 1 to 3 months, . . .	4	4	8	6	2	8	3	2	5	2	—	2
3 to 6 months, . . .	1	5	6	1	6	7	3	3	6	2	1	3
6 to 12 months, . . .	—	2	2	—	3	3	1	7	8	1	3	4
1 to 2 years, . . .	1	—	1	—	2	2	1	3	4	1	3	5
2 to 5 years, . . .	—	—	—	—	1	1	—	1	1	1	3	3
Over 5 years, . . .	—	—	—	—	—	—	—	—	—	—	—	1
Totals, . . .	9	18	27	9	18	27	9	18	27	5	11	16
Average of known cases (in months),	3.55	2.28	2.91	3.22	5.89	4.55	5.33	8.17	6.75	12.20	18.10	15.15
										9.20	9.20	9.20

2.2
86
11

U.S. GOVERNMENT
PRINTING OFFICE

Public Document

No. 84

THIRD ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL,

FOR THE YEAR ENDING NOV. 30, 1911.



BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,

18 POST OFFICE SQUARE.

1912.

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362.2
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APPROVED BY
THE STATE BOARD OF PUBLICATION.

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TRUSTEES

OF THE

BOSTON STATE HOSPITAL.

WALTER CHANNING, M.D., <i>Chairman</i> ,	Brookline.
HENRY LEFAVOUR, <i>Secretary</i>,	.	.	.	.	Boston.
Mrs. HENRIETTA S. LOWELL,	.	.	.	.	Brookline.
LEHMAN PICKERT,	.	.	.	.	Brookline.
Mrs. KATHERINE G. DEVINE,	.	.	.	.	Boston.
HON. MELVIN S. NASH,	.	.	.	.	Hanover.
MICHAEL J. JORDAN,	.	.	.	.	Dorchester.

Stated meetings of the trustees are held at the hospital on the second Tuesday of each month.

VISITING COMMITTEES, 1911-12.

February,	.	.	.	.	Mrs. DEVINE and Mrs. LOWELL.
March,	.	.	.	.	Mr. LEFAVOUR and Mr. PICKERT.
April,	.	.	.	.	Mr. JORDAN and Mr. PIPER.
May,	.	.	.	.	Dr. CHANNING and Mr. PICKERT.
June,	.	.	.	.	Mrs. DEVINE and Mrs. LOWELL.
July,	.	.	.	.	Dr. CHANNING and Mr. PIPER.
August,	.	.	.	.	Mr. LEFAVOUR and Mrs. LOWELL.
September,	.	.	.	.	Mr. JORDAN and Mr. PICKERT.
October,	.	.	.	.	Mrs. DEVINE and Mrs. LOWELL.
November,	.	.	.	.	Mr. LEFAVOUR and Mr. NASH.
December,	.	.	.	.	Mr. JORDAN and Mr. PICKERT.
January,	.	.	.	.	Dr. CHANNING and Mrs. DEVINE.

RESIDENT OFFICERS

OF THE

BOSTON STATE HOSPITAL.

HENRY P. FROST, M.D.,	.	.	.	<i>Superintendent.</i>
SAMUEL W. CRITTENDEN, M.D.,	.	.	.	<i>Assistant Superintendent.</i>
STEPHEN E. VOSBURGH, M.D.,	.	.	.	<i>First Assistant Physician.</i>
MARY E. GILL, M.D.,	.	.	.	<i>Assistant Physician.</i>
ERMY C. NOBLE, M.D.,	.	.	.	<i>Assistant Physician.</i>
JOHN E. OVERLANDER, M.D.,	.	.	.	<i>Assistant Physician.</i>
JOHN I. WISEMAN, M.D.,	.	.	.	<i>Assistant Physician.</i>
MYRTHELLE M. CANAVAN, M.D.,	.	.	.	<i>Pathologist.</i>
JANE ROBERTSON,	.	.	.	<i>Superintendent of Nurses.</i>
JESSIE M. BUIST,	.	.	.	<i>Assistant Superintendent of Nurses.</i>
FLORENCE N. SPIDLE,	.	.	.	<i>Matron.</i>
ARTHUR E. MORSE,	.	.	.	<i>Chief Engineer.</i>
LOUIS S. WHITE,	.	.	.	<i>Farmer.</i>

NON-RESIDENT OFFICERS.

WILLIAM E. ELTON,	.	.	.	<i>Treasurer and Steward.</i>
ARTHUR E. MORSE,	.	.	.	<i>Chief Engineer.</i>
LOUIS S. WHITE,	.	.	.	<i>Farmer.</i>

BOARD OF CONSULTING PHYSICIANS.

CHARLES F. WITHINGTON, M.D.,	}	<i>Physicians.</i>
JOHN L. AMES, M.D.,		
JOHN BAPST BLAKE, M.D.,	}	<i>Surgeons.</i>
FRED B. LUND, M.D.,		
JOHN JENKS THOMAS, M.D.,	.	<i>Neurologist.</i>
ROBERT G. LORING, M.D.,	.	<i>Ophthalmologist.</i>
ALFRED M. AMADON, M.D.,	.	<i>Otologist.</i>
HARRIS P. MOSHER, M.D.,	.	<i>Laryngologist.</i>
MALCOLM STORER, M.D.,	.	<i>Gynecologist.</i>
CHARLES J. WHITE, M.D.,	.	<i>Dermatologist.</i>

The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to present herewith their third annual report.

DEVELOPMENT OF THE HOSPITAL.

Each year the State insane hospitals are called on to make additional provision for the increase in the cases of insanity seeking for admission. The State Board of Insanity, knowing the capacity of these institutions, can with some accuracy determine the probable number of cases which circumstances render it desirable to apportion to each. Situated as the Boston State Hospital is, in the metropolitan district, which furnishes a large percentage of the admissions to all the hospitals, and with a psychopathic department for the first care and observation of acute cases, both the trustees and the Board of Insanity are of the opinion that this institution must be looked to, to provide for a constantly increasing number of patients, especially of the more acute and excited type, who should be removed as short a distance as possible from their homes.

In accordance with these views, the trustees, in their report for 1910, asked for a special appropriation for alterations in the buildings at the men's department; a home for male nurses; buildings for patients working on the farm called the "farm group"; a service building, and an addition to the electric light and power plant. The farm group, while badly needed, is omitted from this year's list of requests, other demands being more urgent. As no special appropriation was granted the

hospital last year for these purposes, the trustees would again respectfully submit their reasons for asking for it. In the report referred to, they said: —

In visiting the buildings in the men's department, legislative committees have very justly criticized the large amount of unnecessary space taken up by halls and passageways, and also the cheerlessness of them. Plans have been prepared for throwing some of these halls into the wards and taking down partition walls, in this way giving more light and enough extra space to accommodate about 32 patients. For this purpose the trustees ask for the sum of \$6,000.

At present we have no proper quarters for male nurses, and this lack is one of the reasons why it is hard to retain good men in our employ. With the continually increasing number of patients, our present accommodations, poor as they are, are becoming overcrowded. We therefore ask for an appropriation of \$22,000 to provide a nurses' home for 35 men.

Since this paragraph was written in 1910, the plans have been revised so that the building, as now arranged, will provide for 42 men at the same expense, making a decidedly low per capita cost.

For a service building for the entire institution, including a bakery plant, we ask an appropriation of \$42,000. So far the hospital has had only a few small refrigerators and no storeroom of adequate size. Consequently provisions cannot be kept in quantity, and only a limited stock of general supplies. Within a comparatively short time we shall have a population of upwards of 1,200. The economical administration of an institution caring for so many patients requires a thoroughly equipped service building, including a refrigerating plant.

When the infirmary buildings are completed an addition to the electric light and power plant will be needed. We ask \$13,875 for this purpose.

This year the amount needed will be \$16,000. The difference is explained by the fact that last year the cost of outside wiring to connect the infirmary buildings, if lighted from the present direct current plant, amounting to \$2,125, was deducted, this being the sum allowed in the contract for the infirmary buildings. As no special appropriation was granted in 1911 and the connections have been made with the infirmary buildings, the cost remains as first estimated. The reasons why this

addition is necessary are the following: It is desirable to install two electric current generators in the engine room at the women's department which will enable us to do away with the electric light and power plant at the men's department, effecting economy in operation. It would be a mistake to put in any more direct current generators, as an alternating plant will distribute current much more economically to the scattered groups of buildings.

In addition to this appropriation, we would ask for an appropriation of \$115,000 for a building for disturbed women and \$34,500 for farm buildings. A real exigency exists for the erection of a building for disturbed women. The superintendent makes this clear in his report. In addition to what he has to say, we would add from our own observation, that many harmless patients, who need quiet surroundings are excited, made unhappy, and in some cases seriously injured, by the presence of a class of noisy, disturbed and violent patients who should not be treated in the same building with them. The number of this class is, and has been, unusually large, and probably will be, as the hospital of necessity must expect, from its ready accessibility to Boston, to receive the most disturbed class of patients. Success of treatment largely depends on a proper classification, which at present is impossible. If we can have a building for disturbed women, a much improved classification will result, and we shall approach still nearer the standard of care, which as a matter of humanity and medical treatment, we feel it our duty to provide. The farm buildings were old when the city acquired the property, and are now dilapidated and not worth repairing. They stand on sites needed for ward buildings; are inconveniently placed for administration, and are much too small for present needs. Their proximity to the hospital buildings is unpleasant and unsanitary. If we are to continue to produce our own milk, as is desirable, both for economy and health, a sanitary dairy barn is an absolute necessity and one that cannot be safely ignored. The estimated cost is \$34,500.

Summary of Appropriations for 1912.

Maintenance,	\$310,000
For the main hospital,	\$270,000
For the psychopathic department,	40,000
Building for disturbed women,	115,000
Alterations, buildings men's department,	6,000
Nurses' home,	22,000
Service building,	42,000
Farm buildings,	34,500
Addition to electric light and power plant,	16,000
Extension of sewage and water systems to proposed new buildings,	3,000

The Legislature of 1909-10 granted an appropriation for the erection of an infirmary group for 300 patients, an addition to the Butler building for the treatment of acute cases and a laundry and industrial building. The infirmary group will be ready for occupancy in the spring of 1912. The hospital contains a large and steadily increasing number of infirm and bedridden patients, and pressure on the wards will be relieved by placing these patients together under one roof. The laundry and industrial building was occupied during the summer. It is bright and attractive, and for the first time the hospital has adequate facilities for furnishing employment to the women. Further details concerning the new buildings will be found in the report of the superintendent.

PSYCHOPATHIC HOSPITAL.

The construction of the building has gone on steadily, though somewhat delayed by various minor difficulties. These have, however, been successfully surmounted, and it is expected that patients will be received in the early summer of 1912. The external appearance of the building is attractive and makes it an ornament to the neighborhood. The internal arrangements, while not yet tested by experience, appear to be well adapted to their purpose. It must be remembered that this building is unique in character, being a general hospital for the mentally sick who, as far as possible, are to be treated like patients in an ordinary city hospital. To accomplish this purpose it is nec-

essary to provide not only the facilities usually found in such an institution, but many added ones demanded by the special character of the disease. Thus we find no large wards, but small ones, as well as many single rooms, allowing for the utmost diversity of classification and treatment. Physicians' and head nurses' offices are either in the wards or close to them. There is an admission department, as well as one for out-patients and social service; examining rooms and laboratories, where careful tests, both mental and physical, can be made; a hydrotherapy plant, continuous bath rooms, solariums, roof gardens, and so on.

Special attention should also be called to the fact that while the patients are being treated as if they were in an ordinary hospital, they are suffering from an illness which makes them irresponsible and they therefore must be carefully watched and protected from possible harm to themselves or others. To carry out the treatment which must be active, thorough-going and vigilant, if the best results are to be attained, there must be a large corps of physicians and nurses on constant duty.

The expense of maintaining general hospitals like the Massachusetts General, and the City Hospital, is large, and the same will be true of the psychopathic hospital, and in considering the per capita cost, comparison should be made with those institutions and not with a State insane hospital. In the psychopathic hospital a large percentage of incipient and mild cases will be received. Many of these will be arrested or cured within a short period.

The out-patient and social service department will treat patients at the hospital and in their homes, often making admission to the hospital unnecessary. This department will also investigate the histories of patients in their homes, and endeavor to find out what may have been the causes of the attacks either in the patients or their environment, thereby gaining information which may throw light on prevention. Students will have the advantage of studying mental disease in the wards as they do other diseases and when they go into practice will be prepared to recognize this disease in the earliest stages when preventive treatment is still possible.

As a result of the work which the psychopathic hospital will

inaugurate, mental disease will be better understood, and outside the hospital, as well as within its walls, an increasing percentage of cases will be prevented or cured. The resulting economic saving to the State should far outweigh the high cost of maintenance, when it is remembered that each case of incurable insanity cared for in a State hospital means an expenditure of several thousand dollars.

ADMINISTRATION.

There has been marked improvement in this direction during the past year. All departments are co-operating and working together as a harmonious whole under the guiding hand of the superintendent.

It is a source of satisfaction to go through the institution and find the wards, dining rooms and kitchens neat and well looked after. The whole staff of employees take great interest in the patients and perform their difficult duties willingly, cheerfully and loyally. The patients respond and in increasing numbers do their best work for the general welfare. Progress toward better things is everywhere apparent.

The superintendent has given careful attention to the improvement of the medical and general management of the hospital, and has also supervised the construction of the new buildings, including the psychopathic hospital. He has shown himself equal to all demands imposed on him, and the steady progress made is in large measure due to his efforts.

REPAIRS AND IMPROVEMENTS.

Much has been accomplished toward bettering the condition of both buildings and grounds. Every male patient who could be gotten out of doors has been given such work as he has been able to do, and the combined efforts of all have been of great assistance. The State has benefited, and still more the patients themselves, who, if not cured, have in many instances gained in both mental and physical condition.

The details of work accomplished under this heading will be found in the report of the superintendent.

AFTER CARE AND SOCIAL SERVICE DEPARTMENT.

The trustees desire to call attention to what the superintendent says on this subject in his report and heartily approve the following statement: "Recognizing the possibilities of more thorough, lasting and far-reaching benefit to the patients and the community by thus extending the hospital's functions and taking an active part in the campaign for the prevention of insanity, I believe the time has come for the establishment of an after care and social service department as an integral part of the hospital organization." Extended study will be necessary to determine the best means of accomplishing this object, but we believe it to be of great importance.

DEATH OF A MEMBER OF THE BOARD.

On July 26, 1911, the Board sustained a severe loss in the death of William Taggard Piper. At the August meeting of the Board, the following resolution was unanimously adopted: —

The trustees of the Boston State Hospital desire to express their profound sense of loss in the death of their honored associate, Mr. William Taggard Piper. During the whole period of his connection with the Board, Mr. Piper has been of unvarying devotion to its interests. He brought with him a keen appreciation of the responsibilities of such a trust and a very varied and valuable experience derived from his connection with other institutions, and this experience he placed generously at the disposal of the hospital and gave unstintingly of his time and thought. He belonged to the rare type of loyal and useful public servants who contribute so unselfishly to the welfare of the Commonwealth.

APPOINTMENT TO THE BOARD.

In September, Hon. Melvin S. Nash, of Hanover, was appointed by the Governor to fill the unexpired part of the term of Mr. Piper, ending on the first Wednesday in February, 1918, and he assumed the duties of the position at the meeting of the Board on October 10.

APPOINTMENT OF A MEDICAL CONSULTING STAFF.

At the November meeting of the Board it was unanimously voted to ask the following gentlemen to serve as a consulting staff:—

Chas. F. Withington, M.D.,	.	.	.	.	.	}	<i>Physicians.</i>
John L. Ames, M.D.,	.	.	.	.	.
John Bapst Blake, M.D.,	.	.	.	.	.	}	<i>Surgeons.</i>
Fred B. Lund, M.D.,	.	.	.	.	.
J. J. Thomas, M.D.,	.	.	.	.	.	.	<i>Neurologist.</i>
Robert G. Loring, M.D.,	.	.	.	.	.	.	<i>Ophthalmologist.</i>
Alfred M. Amadon, M.D.,	.	.	.	.	.	.	<i>Otologist.</i>
Harris P. Mosher, M.D.,	.	.	.	.	.	.	<i>Laryngologist.</i>
Malcolm Storer, M.D.,	.	.	.	.	.	.	<i>Gynecologist.</i>
Charles J. White, M.D.,	.	.	.	.	.	.	<i>Dermatologist.</i>

The trustees anticipate great help from the advice and co-operation of these gentlemen, in solving difficult medical problems, and regard the hospital as fortunate in having secured their services.

Full details of hospital operations for the current year will be found in the appended reports of the superintendent and treasurer.

Respectfully submitted,

WALTER CHANNING.
HENRY LEFAVOUR.
HENRIETTA LOWELL.
KATHERINE G. DEVINE.
MICHAEL J. JORDAN.
LEHMAN PICKERT.
MELVIN S. NASH.

SUPERINTENDENT'S REPORT.

To the Trustees of the Boston State Hospital.

I have the privilege and duty of submitting herewith the third annual report of the hospital, for the year ending Nov. 30, 1911, together with the statistics prescribed by the State Board of Insanity, which are for the year ending September 30.

There were 861 patients in the hospital at the beginning of the statistical year; the admissions numbered 762, the dismissals 614, deaths 140, leaving 869 at the close of the year.

The daily average number of patients was 853.48, of whom 732.45 were State charges, 43.27 reimbursing, and 77.76 private; 1,545 different patients were in the hospital during the year.

There were 24 emergency, 25 voluntary, and 342 temporary care cases admitted.

Exclusive of temporary care cases, transfers and returns from visit, 433 patients were received, of whom 380 were admitted for the first time, 32 for the second time, and 21 for the third to sixth time.

The cases never before committed to any hospital for the insane numbered 357. Concerning these the following facts are noted: 175, or 49 per cent., were foreign born, and 264, or 74 per cent., were of foreign parentage on one or both sides. The average age on admission was 44.97 years; 21 per cent. were sixty years of age or more.

The chief causes of insanity (excluding 119 cases, in which it was not ascertained) were: Excessive use of alcohol in 24 per cent.; senility in 20 per cent.; syphilis in 16 per cent.; worry in 10 per cent.; arteriosclerosis in 8 per cent.

There were among the first admissions 45 cases of general paralysis, 12.6 per cent. of the whole number admitted. Seventeen of the 45 paretics were women, which is an unusually high ratio, though not so high as in our admissions of the previous year.

The discharges, exclusive of transfers, and not including the temporary care cases, which are separately considered, numbered 161. Of these, 66 were recovered, and 63 improved, — 15 of them classed as “capable of self support.” The recoveries were 15.2 per cent. of the number committed, which is an improvement over last year’s record, though by no means a figure to afford satisfaction. It is a fact, however, that 34 per cent. of the admissions were hopeless cases by reason of congenital defect, advanced age, or organic brain disease, to say nothing of those recognized as suffering from psychoses usually found to be incurable.

There were 145 deaths, 5 of which occurred among patients in “temporary care.” Excluding these and figuring on the committed cases only, as heretofore, the deaths were 10.7 per cent. of the whole number under treatment, 16.4 per cent. of the daily average number of patients, and 32 per cent. of the commitments. The cause of death was general paralysis in 31 cases, other diseases of the nervous system in 11, pneumonia in 36, tuberculosis in 6. One was a suicide.

In conformity with a practice which is rapidly extending, and in order that our report may be more readily comparable with those issued by the leading hospitals of this country, we have this year classified our cases under the Kraepelin diagnostic headings as modified by Prof. Adolf Meyer.

The psychopathic wards in the Butler building received from Oct. 1, 1910, to Sept. 30, 1911, 342 patients, 205 men and 137 women. One hundred and six were committed to this hospital, 139 committed or returned to other hospitals, and 101 were discharged without commitment, 52 of them as recovered. The daily average number of temporary care cases was: Men, 4.82; women, 3.67; total, 8.49. More detailed statistics of this special service will be found in Table 1a of this report.

The variety of disorders which came under care, and the extent to which the opportunity to secure prompt relief in emergency situations was taken advantage of, augur well for the success of the permanent psychopathic wards soon to be opened in a more central and accessible location, where, with plenty of room for classification, and the best of equipment for treatment, results may be anticipated of which those here reported are but the promise.

We have not had to contend this year with any unusual sickness among patients or employees, and have been relatively free from such diseases as tuberculosis, dysentery, and diarrhoeal disorders. Segregation of the tubercular and their treatment in the open air during the mild season, together with the maximum of outdoor life for the whole population and scrupulous care in the handling of garbage, and the exclusion of flies, are measures which have no doubt contributed to this result. An effort, more or less successful, was made to curtail the breeding of flies, by screening and prompt removal of manure from the stables, and cleaning up other breeding places; and in general the sanitary condition of the premises has been improved by the substitution of granolithic pavement for cobblestones in the kitchen yard, laying drains, filling low marshy spots, etc.

The only serious mishap I have to report is the occurrence of a suicide. The patient, a young man who had been in the hospital several months, and who was in a moody, depressed state, was suspected of having some harmful weapon in his possession, and while in the act of being searched by the attendants, succeeded in slashing his throat with a kitchen knife which he had secreted, dying in a few moments.

Nineteen male patients eloped, all of whom, with one exception, were returned to the hospital or else accounted for at home and allowed to remain there. That more do not leave without permission speaks well for the parole and open-door system which is practiced here on a large scale, more than 20 per cent. of the men being given parole on the grounds. Of 30 who slept in tents all summer with no special supervision, not one absconded.

CHANGES IN THE MEDICAL STAFF

during the year were as follows: —

Dr. John E. Overlander was appointed assistant physician July 1.

Dr. Harry M. Nicholson, assistant physician, resigned October 1 to accept appointment in the Massachusetts Eye and Ear Infirmary.

Dr. John I. Wiseman was appointed assistant physician October 1.

Dr. Overlander had served two years in the Channing Sanitarium, and Dr. Wiseman a corresponding period in the Kings Park State Hospital in New York, so they both entered upon their duties here with unusually good preparation, and are, from the start, valuable assistants.

Dr. Howard A. Lane, who was engaged last year as dentist for the patients, resigned, to our regret, owing to other appointments. This position is now acceptably filled by Dr. Walter J. Whelan of Mattapan, who visits the hospital once a week and devotes a forenoon to this service.

THE LABORATORY,

opened late in the preceding year, has had installed the additional apparatus required, and is now well equipped for work in bacteriology, clinical pathology and pathological anatomy. Autopsies were performed on 50 cases during the year, this number being 35.71 per cent. of the deaths occurring in the hospital. Examinations of blood, cerebrospinal fluid, sputum, urine and fæces were made in many cases; bacteriological examination of the milk was begun, and comparative tests of commercial disinfectants made in order to determine their relative efficiency and cost. Close co-operation between the laboratory and the clinical staff is maintained through the medium of staff meetings, of which one each month is held in the laboratory and devoted to demonstration and discussion of material by the pathologist.

I have pleasure in calling your attention to the appended report by Dr. Canavan, showing in some detail what has been accomplished in her department and what is planned for the immediate future.

NURSES' TRAINING SCHOOL.

Twelve pupils comprising the class of 1911 received their diplomas on the evening of June 8, on which occasion appropriate exercises were held in the entertainment hall, concluding with a reception and dance. The address to the graduates was delivered by President Lefavour of Simmons College, and the diplomas were presented by Dr. Channing, chairman of the board of trustees.

The report of the superintendent of nurses shows full classes, a large excess of applications, and few resignations among the pupils, all of which are evidences that the school is thriving. Several of the male attendants are participating in the course and are expected to be among the graduates next year. The special course of instruction for the men who do not consent to join the school has been continued with good results.

FIELD WORKER AND SOCIAL SERVICE.

We were fortunate in securing, October 1, the services of Miss Ruth W. Lawton, a trained field worker from the Eugenics record office conducted by Dr. Charles B. Davenport at Cold Spring Harbor, Long Island. The special object of this assignment, which is at the expense of the record office except for maintenance and incidentals, is the study of heredity in insanity, but in securing data on this subject in the homes of patients and among their relatives and friends, the field worker is able to serve the hospital, the patient and the family in many practical ways. Information is obtained concerning the family, their resources, the home conditions, — the setting in which the patient's disorder occurred, — and concerning the patient's personality, tastes, aptitudes, habits, the stresses to which he was exposed, etc., — the soil on which the psychosis developed and its exciting causes, — all of which are important aids to the physicians in forming their judgment of the nature and needs of the case. Then, when it is a question of the patient's discharge, such a survey of the situation in which he is placed, and a supervision by visits during the trial period, will constitute the most effective sort of after care.

Recognizing the possibilities of more thorough, lasting and far-reaching benefit to the patients and to the community by thus extending the hospital's function and taking an active part in the campaign for the prevention of insanity, I believe the time has come for the establishment of an after care and social service department as an integral part of the hospital organization. It should command the interest and attention of all the medical officers, but should be under the special charge of a physician, who, with the necessary experience and knowledge, combined with certain essential qualifications, in-

cluding conviction and enthusiasm, might devote himself (or herself) to this most interesting and fruitful field. The results would have to be meager indeed not to amply repay to the State the added cost of the service.

EMPLOYMENT OF PATIENTS.

The industrial rooms for both men and women have expanded into larger quarters, and a number of new industries have been introduced, which furnish agreeable and beneficial occupation for the patients of various classes, and supply many of the hospital necessities at a very low cost of production. The men make and renovate mattresses and pillows; manufacture brooms, brushes, mats, and rugs; cane chairs, do upholstering, fit window shades, repair shoes and renovate old furniture. The women sew, do fancy work, make raffia and reed baskets and mats, straw hats, and rugs, repair, mark and press clothing, etc. The attendants and nurses are detailed to assist in these work rooms, and are given instruction to fit them for teaching and encouraging their patients in the wards to relieve and stimulate their minds by means of useful occupation. Experience has shown here and elsewhere that with but few exceptions even the dullest can be aroused to take an interest in something if only enough pains be taken by those in charge, and that the benefit to the individual is not less marked than the saving to the hospital in lessening of untidiness and destructive tendencies. Thirty-three men and 90 women patients are in attendance daily in the industrial rooms.

Outdoor work, however, for those able to participate in it, is held to be of even greater value than shop employment in promoting bodily and mental health; and there is an unlimited amount of work to be done on the grounds and in the farm and garden; consequently, the number of outdoor workers among the men is larger than the shop list. The daily average number so engaged, excluding the winter months, was 65.

The percentage of patients employed at all kinds of work, including that done in the wards, is for the men 60 per cent., and for the women 65 per cent. Aged and infirm patients, the bedridden and the violent, will account for practically all of the remainder.

ENTERTAINMENT OF PATIENTS.

Due attention has been paid to diversions, with the understanding that these have a therapeutic value of real importance in many cases, besides being a recognized factor in all social life and a privilege of which no one, not a criminal, ought to be deprived if in a condition to feel appreciation. It is pleasing, and at the same time pathetic, to see how hearty is the average patient's enjoyment of even very simple entertainments, and to observe their cheering influence, anticipatory and retrospective, in the wards. The following were provided during the year: —

Dance every second Monday evening from October to May.

Dec. 9, S. di Grazia — Eccentric musical program.

13, Mme. Helen Stuart-Richings — Recitations and impersonations.

Feb. 6, Edward Brigham — Songs and recitations.

13, S. Thompson Blood — Impersonations.

Mar. 27, J. B. Giguere — Songs and banjo playing.

Apr. 5, Mrs. Olive W. Hilton — Vocal and instrumental concert.

July 4, Band concert, watermelon, lemonade and peanuts.

Oct. 13, W. E. Baker — Sleight of hand performance, women's department.

28, Hospital Music Association — Concert, afternoon and evening.

Nov. 4, W. E. Baker — Sleight of hand performance, men's department.

14, Mrs. Olive W. Hilton — Vocal and instrumental concert.

27, Avelier L. French — Bird, animal and sound imitations.

Thirty-three men and 38 women patients attended a circus performance in the city on May 31 and June 1, respectively. August 17, there was a picnic for 45 women patients at Blue Hills Reservation.

Special dinner with table and ward decorations on Thanksgiving and Christmas, and on the evening of the latter, Christmas trees, with distribution of presents and program of music.

In addition to the above there have been ward musicales and card parties, physical culture exercises, and for selected patients basket ball and other games in the gymnasium.

REPAIRS AND IMPROVEMENTS.

The larger items under this head were: painting Walker, Stedman, Butler and "A" buildings outside, and all of these except the last inside as well, from top to bottom; erecting 6 outside iron fire escapes, on Wards "E" and "C" and the employees' quarters at the women's department, and the south wing of the men's group; installing new telephone exchange with 56 stations, connecting all departments of the hospital; putting new roofs on cow stable and one wing of the horse and carriage stable at the women's department; making rather extensive repairs to the piggery; rebuilding a number of outside wooden platforms and steps; moving and rebuilding a summer house; making ironing boards, racks, tables, and other fittings for the new laundry and building laundry dry room; laying 237 yards of granolithic pavement and walks; laying 222 feet of 6-inch iron pipe for new water supply to Stedman and Walker buildings; laying sewers, grading and roadmaking around the new buildings; planting 140 trees; clearing, draining and putting under cultivation 9 acres of swamp land. The engineer's force, in addition to their regular work, laid out and installed shafting and pulleys for power transmission in the new laundry, erected and made connections to 3 motors for same, and made up and installed all the electric fixtures for this building. The engineer also superintended the overhauling and moving of laundry machinery from the old to the new building.

NEW BUILDINGS.

The new laundry was completed and occupied during the summer. Three new washing machines, an extractor and a tumbler dryer were installed, but the rest of the equipment is the old machinery moved from the former quarters, much of it antiquated and of little efficiency. An additional mangle is badly needed, also body and shirt ironers, a collar shaper and various pieces of minor apparatus to enable us to handle satisfactorily the large additional amount of work to be done in this department when the infirmary and psychopathic hospital shall be occupied within the coming year. The upper floor

of this building is a large, sunny, well-ventilated room, admirably suited for the purpose to which it is applied — an industrial room for women patients.

The addition to the Butler building was occupied in October and completes very satisfactory provision for recent excited cases of both sexes, and also for the temporary care patients. The addition consists of an extension to each of the two Butler wards, in which are a dormitory, a semi-private section of three communicating rooms, a sitting room, and a large bathroom equipped with shower and tubs for prolonged baths. The basement contains hydrotherapeutic and massage treatment rooms. In these wards a complete separation is possible between those patients who are excitable and noisy, and others who, removed from disturbing association with them, are calmer but yet too unstable to be transferred to other wards, and who require the special treatment for which this section is equipped. The new quarters are attractive and cheerful, and already the benefits to be expected from this important addition to our facilities for treating the most difficult cases are being experienced.

The infirmary group is nearing completion and will be ready to receive patients, we hope, in January. The construction is first class and the arrangement, as now seen in the nearly completed building, seems excellently suited for the care and treatment of our large quota of infirm and helpless, for which class it will provide quarters for 150 of each sex, including a special hospital ward for men and one for women.

THE PSYCHOPATHIC HOSPITAL.

In addition to the erection, heating, lighting and plumbing contracts entered into last spring, and on which satisfactory progress has been made, the trustees have provided for a refrigerating plant, elevators and hydrotherapeutic apparatus, on all of which work is under way. It is hoped that nothing will occur to prevent the building being ready for service about the first of June.

SPECIAL APPROPRIATIONS NEEDED.

The trustees will doubtless repeat their requests made last year for additional buildings to provide for anticipated growth of the hospital and the consequent increase in service facilities necessitated by the larger number to be cared for. To these items there should, I think, be added a building for the disturbed and violent women patients, who at present occupy a building altogether unsuitable for their care and treatment, and located inappropriately for that purpose, contiguous to the wards for quiet cases, to the sleeping quarters of officers and nurses, and to the main hospital entrance and driveway. They have no privacy, but are stared at by loiterers whom their noise attracts, and are further excited by such attention. The unavoidable sounds from these wards are the subject of numerous vigorous complaints from people living in the vicinity of the hospital.

MAINTENANCE EXPENSES.

The amount expended for maintenance was \$223,581.92, which, divided by the daily average number of patients, 858.12, makes the weekly per capita cost \$4.995. Receipts for board of private patients were \$19,750.66; from reimbursing patients, \$7,410.81; from sales and other sources \$1,463.73, making the total income \$28,625.20.

Deducting receipts from gross expenses, the net cost of maintenance was \$194,956.72, which, divided by the above average number of patients, gives a net weekly per capita cost of \$4.357.

The expense of maintenance for the coming year is estimated at \$270,000 for the main hospital and \$40,000 for the psychopathic hospital, or \$310,000 altogether. This sum will provide for the considerable increase in population which will result from opening the new infirmary group early in the year, and will maintain the psychopathic hospital for six months, from June to December.

VISITORS.

The hospital was officially visited and inspected by His Excellency Governor Foss, Lieutenant-Governor Frothingham, and the Executive Council, with the secretaries to the Governor

and the Council; by the legislative committee on Public Charitable Institutions; Messrs. Harpham and Coe, experts for the Governor; the chairman, executive officer and members of the State Board of Insanity and their assistants and agents. Visits were received from many persons connected with similar institutions or interested in them, among whom were: Prof. Adolf Meyer of Johns Hopkins University; Dr. William L. Russell, superintendent of Bloomingdale Hospital; Dr. Robert B. Lamb, formerly superintendent of Matteawan State Hospital; Dr. Charles H. North, superintendent of Dannemora State Hospital; Dr. Donald L. Ross, superintendent of the Connecticut State Hospital for Epileptics; Dr. Walter E. Fernald, superintendent of the Massachusetts School for Feeble-minded; Dr. George L. Wallace, superintendent of the similar institution at Wrentham; Dr. Arthur V. Goss, superintendent of Taunton State Hospital; Dr. Charles T. LaMoure, superintendent of Gardner State Colony; Dr. Frederick L. Hills, superintendent of the Eastern Maine Insane Hospital; Dr. George H. Torney of the Utica State Hospital; Dr. F. S. Meyer and M. Witlam, of Amsterdam, Holland, etc.

The Assistant Physicians' Association held a meeting here which was attended by members of the staff from most of the Massachusetts hospitals for the insane; and the hospital stewards also had one of their meetings at the hospital. The classes from Harvard, Tufts and Boston University Medical schools were received for clinics, also Dr. Cabot's summer class (post-graduate).

ACKNOWLEDGMENTS.

Thanks are returned for donations of magazines and illustrated papers by the Hospital News Society, the Boston Public Library, Dr. Walter Channing, and Dr. Owen Copp; to Mrs. Guy Lowell for two framed engravings for the wards, and to Dr. Dixwell and members of the Hospital Music Association for their annual concert, which is always enjoyed. Father James J. McCafferty was, during the year, succeeded as Catholic chaplain by Father Edward Gallagher, to both of whom and to Rev. Charles S. Otto, we are grateful for faithful and comforting services to patients.

For me the year has been full of work, but free of worry, thanks to the cordial assistance of my fellow-workers — officers and employees — to whom is due and gratefully rendered most of the credit for such improvement in the hospital plant and its service as you have been pleased to note and commend. With renewed thanks to the trustees for their unfailing support and too generous treatment,

Respectfully submitted,

HENRY P. FROST,

Superintendent.

Nov. 30, 1911.

REPORT OF THE PATHOLOGIST.

To the Superintendent of the Boston State Hospital.

The following is a report from the laboratory for the period from Oct. 7, 1910, to Sept. 30, 1911.

Although pathological work has been done for this hospital since 1881 by Drs. W. W. Gannett, W. T. Councilman, F. B. Mallory, J. J. Thomas, E. E. Southard, E. W. Taylor, and R. M. Pearce, no resident pathologist had ever been appointed, and the necessary clinical pathology was done by the assistant physicians. Press of work due to enlargement of the hospital, more admissions, greater demands on the staff, need for meeting and advancing the standard of other hospitals which maintain laboratories, made the necessity for a definite pathological department obvious, and accordingly plans were maturing for its establishment in the minds of Drs. Copp and Frost, and the appointment of the writer in June, 1910, became a fact in October, when the

ORGANIZATION OF THE LABORATORY

became the first consideration. Before the laboratory apparatus was assembled, a problem in hygiene in the form of an epidemic of paratyphoid fever among the employees presented itself (description of which is to be published), and the unavoidable delay of equipment proved a serious obstacle for assistance in diagnosis. For a time much work of interest was turned over to the city board of health, and the attention of the writer centered on clinical pathology, antityphoid inoculations and collection of epidemiological data.

By December 1 a skillful and thoroughly trained technician — Miss Ellen R. Scott — was installed, from the Harvard Medical School, to whom is entrusted the details of cutting and staining the tissues, making stains and solutions, preparing media, assisting with inoculation of animals, with records and preparation of specimens, and taking protocol notes.

The regular work began in earnest in February with a modest equipment of microtomes, glassware, chemicals, sterilizers, incubators, centrifuges, weights and balances, for bacteriology, pathology, clinical pathology and histology, proportionate to the needs of the hospital.

Since fan ventilation, gas and new instruments have been provided for the autopsy room, it is hoped that the walls will be repaired, and that a larger table with central drainage and overhead water supply can be obtained.

AUTOPSIES.

Through the courtesy and persistence of the members of the staff, permission has been secured for autopsies in 34+ per cent. of the deaths, and from Oct. 7, 1910, to Sept. 30, 1911, 50 post mortems have been performed. Protocols are made directly, typewritten, and a duplicate filed with the case, the originals being kept in the laboratory and bound into volumes. Protocols of the autopsies of the 190 cases in the preceding nineteen years are being assembled for binding.

TEACHING OF NURSES.

Advantage of the demonstration of anatomy and the gross pathology has been taken by the superintendent of nurses, who has sent members of the training school to be in this way instructed, and the staff have been in almost constant attendance during the performance of autopsies to correlate findings with their ante mortem diagnoses.

Gross specimens, 35 in number, have been collected and preserved in Kaiserling's fluid. It is purposed to secure suitable jars for displaying these specimens, which then will be available for demonstration. Sections for histological examination have been preserved from each autopsy. The spinal cords are prepared by the Marchi and Weigert methods in each case, while trunk organs are examined by the nuclear and connective tissue stains of Mallory. Brains which show tumors, arteriosclerotic or other gross lesions have been sectioned *in toto*, and are being prepared for demonstration of the degenerations in nuclei and tracts. Temporal bones from a series of 25 or 30

cases have been decalcified and handed over to Dr. A. M. Amadon of the Harvard Medical School for intensive histological study of the organ of Corti.

Permission was received from the hospital for afternoons during August, that the writer might receive instruction in general pathology under Prof. W. T. Councilman at the Harvard Medical School, and much of profit learned there will be included in the second course of lectures and demonstrations to the nurses in pathology, bacteriology and urinary analysis during this winter, and in the autopsy interpretations at the laboratory staff meetings, of which there have been 6 in the period covered by this report, and in which 25 autopsied cases have been reviewed.

CLINICAL PATHOLOGY.

Since the establishment of the laboratory, it has been ready to examine and report on specimens which might arise from the medical services, and the following is a list of work done from Oct. 7, 1910, to Sept. 30, 1911:—

Pleuric fluids,	1
Surgical specimens,	3
Pus,	7
Blood cultures,	8
Bacteriological examination of stools,	10
Bacteriological examination of urine,	10
Vaccines,	10
Widals,	21
Cerebrospinal fluids,	34
Throat cultures,	60
Blood counting,	121
Urines,	407
<hr/>	
Total,	692

BACTERIOLOGY.

From each autopsy cultures are taken from the heart's blood and cerebrospinal fluid, and from glands, bladder or other foci when suspicion pointed to them, for completion of the observation of the cases. Examinations of the throat for exclusion of the Klebs-Loeffler bacillus, stools from patients suffering from

enteritis, pus from urethral and vaginal discharge, meat to determine effect of storage, urine from patients recovering from acute illness or suffering from cystitis were made, results from which are valuable to the physician in charge, and of interest to the laboratory. Many animal inoculations have been made to determine the presence of tubercle bacilli, and an inoculation to determine virulence of Klebs-Loeffler bacillus found in sputum was done.

It is proposed to continue and extend the laboratory work as described in the foregoing pages, and to investigate the bacteriological content of meat and milk from time to time during the coming months, and to complete several pieces of individual work for publication.

In conclusion I wish to thank the officers who have made this report possible, for their interest and help, and you, who have given me generous encouragement.

Respectfully submitted,

MYRTELLE M. CANAVAN,
Pathologist.

SEPT. 30, 1911.

SUPERINTENDENT OF NURSES' REPORT.

To the Superintendent of the Boston State Hospital.

The twelfth annual report of the Training School for Nurses is herewith respectfully submitted:—

Graduating Class of 1911.

Edna L. Proctor.	Henrietta L. Schaffner.
Annie L. Proctor.	Sarah A. Goodwin.
Helen J. Raymond.	Maidie E. Tilley.
Grace H. Tracey.	Margaret A. MacLeod.
Sarah A. Macdonnell.	May M. Wood.
Marion E. Stavers.	Annie B. Backman.

Nursing Staff.

Superintendent of nurses,	1
Assistant superintendent of nurses (graduate),	1
Supervisors, day (graduates),	3
Supervisor, night (graduate),	1
Head nurses (graduates),	9
Head nurses (pupils),	8
Night nurses (pupils),	10
Night attendants,	5
Day nurses (pupils),	22
Day attendants,	20
Probationer,	1
Total,	81

Applications during the year,	324
Applications accepted during the year,	68
Probationers,	40
Attendants,	25
Former graduates of this school,	3

Left during the year:—

Graduates,	3
Pupils,	9
Attendants,	28
Probationers (one became telephone operator),	22
Probationers rejected,	5

The training school has graduated 12 nurses during the year, making a total of 80 nurses since it was organized.

Two of our graduates have resigned during the year and have entered a general hospital to take a postgraduate course. One of our former graduates returned and remained with us a few months in charge of the industrial room. Two other post-graduates also returned, and are still with us in charge of wards.

The school opened this year with an attendance of 48 pupils, which is shown as follows: —

Undergraduates,	.	.	.	.	.	.	.	.	.	.	.	8
Seniors (including 2 men),	.	.	.	.	.	.	.	.	.	.	.	21
Juniors (including 1 man),	.	.	.	.	.	.	.	.	.	.	.	14
Probationers,	.	.	.	.	.	.	.	.	.	.	.	5

Instruction is given by the physicians of the hospital staff, the superintendent of nurses, and the assistant superintendent of nurses, covering courses in anatomy, physiology, hygiene, bacteriology, histology, pathology, chemistry, hydrotherapy, emergencies, physiology and diseases of the skin, lungs and kidneys, urinalysis, surgery and anæsthesia, diseases of bones, fractures and dislocations, immunity and serum therapy, vaccines, materia medica, gynecology, obstetrics, tuberculosis, symptomatology, acute infectious diseases, anatomy and physiology of the nervous system, psychiatry, massage, cooking, housekeeping and clinical instruction.

Respectfully submitted,

JANE ROBERTSON,
Superintendent of Nurses.

VALUATION.

Nov. 30, 1911.

Buildings and 152 acres land taken from the city of Boston Dec. 1, 1908, . . .	\$1,000,000 00	
79 acres land taken Nov. 3, 1909, assessed for	62,710 00	
Amount paid on new buildings and addi- tions: —		
Infirmary,	184,698 16	
Laundry,	42,553 61	
Butler,	36,288 35	
Psychopathic hospital (land and building),	386,560 46	
		\$1,712,810 58
Provisions and groceries,	\$3,831 66	
Clothing and clothing materials,	8,816 14	
Furnishings,	50,889 29	
Heat, light and power,	1,567 18	
Repairs and improvements: —		
Machinery and mechanical fixtures,	22,869 00	
All other property,	3,030 32	
Farm, stable and grounds: —		
Live stock on farm,	8,316 40	
Produce of farm on hand,	5,229 30	
Carriages and agricultural implements,	4,377 50	
All other property,	4,129 55	
Miscellaneous,	3,429 11	
		116,482 45
		\$1,829,293 03

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1911:—

CASH ACCOUNT.

Balance Dec. 1, 1910,	\$3,908 48
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Receipts.

Institution Receipts.

Board of inmates:—

Private,	\$19,750 66
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Reimbursements, insane,	7,410 81
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\$27,161 47

Sales:—

Food,	\$387 16
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Clothing and materials,	38 08
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Furnishings,	40 68
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Heat, light and power,	23 18
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Repairs and improvements,	3 20
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Miscellaneous,	5 03
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Farm, stable and grounds:—

Cows and calves,	135 08
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Pigs and hogs,	475 01
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Sundries,	66 00
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1,172 42

Miscellaneous receipts:—

Interest on bank balances,	\$290 31
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Rent,	16 00
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306 31

28,641 20

Receipts from Treasury of Commonwealth.

Maintenance appropriations:—

Balance of 1910,	\$7,204 25
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Advance money (amount on hand November 30),	15,000 00
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Approved schedules of 1911,	\$203,013 92
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Less returned,	22 02
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202,991 90

225,196 15

Special appropriations,	534,575 93
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Total, \$792,321 76

Payments.

To treasury of Commonwealth, institution receipts,		\$28,641 20
Maintenance appropriations:—		
Balance November schedule, 1910,	\$11,112 73	
Eleven months' schedules, 1911,	202,991 90	
November advances,	9,438 10	
	<hr/>	223,542 73
Special appropriations:—		
Approved schedules,		534,575 93
Balance Nov. 30, 1911:—		
In bank,	\$5,223 17	
In office,	338 73	
	<hr/>	5,561 90
Total,		<hr/> \$792,321 76

MAINTENANCE.

Appropriation,	\$223,600 00
Expenses (as analyzed below),	223,581 92
	<hr/>
Balance reverting to treasury of Commonwealth,	\$18 08

Analysis of Expenses.

Salaries, wages and labor:—	
General administration,	\$31,554 07
Medical service,	12,037 10
Ward service (male),	17,671 92
Ward service (female),	26,157 09
Repairs and improvements,	7,486 25
Farm, stable and grounds,	9,725 16
	<hr/>
	\$104,631 59
Food:—	
Butter,	\$5,341 02
Butterine,	2,090 07
Beans,	814 65
Bread and crackers,	186 90
Cereals, rice, meal, etc.,	970 15
Cheese,	1,002 08
Eggs,	4,059 22
Flour,	6,061 17
Fish,	2,226 42
Fruit (dried and fresh),	2,101 92
Meats,	14,217 46
Milk,	5 35
Molasses and syrup,	189 24
Sugar,	2,326 20
Tea, coffee, broma and cocoa,	2,287 36
Vegetables,	681 85
Sundries,	2,497 80
	<hr/>
	47,058 86
Amount carried forward,	<hr/> \$151,690 45

Amount brought forward, \$151,690 45

Clothing and materials: —

Boots, shoes and rubbers,	\$1,617 60	
Clothing,	3,160 85	
Dry goods for clothing and small wares,	1,178 29	
Furnishing goods,	161 15	
Hats and caps,	63 33	
Leather and shoe findings,	59 79	
	<hr/>	6,240 91

Furnishings: —

Beds, bedding, table linen, etc.,	\$6,000 55	
Brushes, brooms,	452 79	
Carpets, rugs, etc.,	673 64	
Crockery, glassware, cutlery, etc.,	1,104 04	
Furniture and upholstery,	1,081 45	
Kitchen furnishings,	792 08	
Wooden ware, buckets, pails, etc.,	74 69	
Sundries,	1,752 81	
	<hr/>	11,932 05

Heat, light and power: —

Coal,	\$15,337 84	
Gas,	20 00	
Oil,	26 89	
Sundries,	563 83	
	<hr/>	15,948 56

Repairs and improvements: —

Cement, lime and plaster,	\$226 85	
Doors, sashes, etc.,	119 07	
Electrical work and supplies,	498 15	
Hardware,	784 93	
Lumber,	1,159 33	
Machinery, etc.,	1,464 09	
Paints, oil, glass, etc.,	1,872 97	
Plumbing, steam fitting and supplies,	1,862 28	
Roofing and materials,	308 20	
Sundries,	3,188 68	
	<hr/>	11,484 55

Farm, stable and grounds: —

Blacksmith and supplies,	\$672 08	
Carriages, wagons, etc., and repairs,	1,059 80	
Fertilizers, vines, seeds, etc.,	734 29	
Hay, grain, etc.,	4,531 58	
Harnesses and repairs,	205 12	
Cows,	1,600 50	
Other live stock,	183 45	
Tools, farm machines, etc.,	575 94	
Sundries,	1,252 27	
	<hr/>	10,815 03

Amount carried forward, \$208,111 55

Amount brought forward, \$208,111 55

Miscellaneous:—

Books, periodicals, etc.,	\$298 83	
Chapel services and entertainments,	1,719 93	
Freight, expressage and transportation,	99 72	
Funeral expenses,	31 45	
Gratuities,	237 45	
Hose, etc.,	75 95	
Medicines and hospital supplies,	2,704 56	
Medical attendance, nurses, etc. (extra),	925 18	
Manual training supplies,	213 60	
Postage,	397 30	
Printing and printing supplies,	552 11	
Printing annual report,	193 58	
Return of runaways,	44 05	
Soap and laundry supplies,	1,029 94	
Stationery and office supplies,	607 57	
School books and school supplies,	3 83	
Travel and expenses (officials),	187 15	
Telephone and telegraph,	592 17	
Tobacco,	257 16	
Water,	4,692 65	
Sundries,	606 19	
		15,470 37

Total expenses for maintenance, \$223,581 92

SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1910,	\$842,475 35
Appropriations for fiscal year,	250,000 00
Total,	\$1,092,475 35
Expended during the year (see statement annexed),	539,951 06
Balance Nov. 30, 1911,	\$552,524 29

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$5,561 90	
November cash vouchers (paid from advance money),	9,438 10	
Due from treasury of Commonwealth account		
November, 1911, schedule,	5,590 02	
		\$20,590 02

Liabilities.

Schedule of November bills,	\$20,590 02
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PER CAPITA.

During the year the average number of inmates has been 858.12.

Total cost for maintenance, \$223,581.92.

Equal to a weekly per capita cost of \$4.995.

Receipts from sales, \$1,173.42.

Equal to a per capita of \$0.026.

All other institution receipts \$27,467.78.

Equal to a per capita of \$0.614.

Special Appropriations.

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Expended to Date.	Balance at End of Year.
For the purpose of establishing in the city of Boston a hospital for the first care and observation of mental patients and the treatment of acute and curable mental diseases,	Acts 1909, chap. 470,	\$600,000 00	\$296,113 94	\$386,560 46	\$213,439 54
Butler building addition,	Acts 1910, chap. 644,	39,000 00	32,076 62	36,288 35	2,711 65
Infirmary,	Acts 1910, chap. 644,	275,000 00	169,971 18	184,698 16	90,301 84
Laundry,	Acts 1910, chap. 644,	44,000 00	36,414 19	42,553 61	1,446 39
Land (paid through State Board of Insanity), {	Res. 1911, chap. 65,	250,000 00	5,375 13	5,375 13	244,624 87
	Acts 1911, chap. 513,				
		\$1,208,000 00	\$539,951 06	\$755,475 71	\$552,524 29

Respectfully submitted,

WILLIAM E. ELTON,

Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

WARREN A. MERRILL.

Assistant Supervisor of Accounts.

PRODUCTS OF THE FARM AND GARDEN.

GARDEN PRODUCTS.

Asparagus, 4 boxes,	\$14 00
Beans, shell, 16 bushels,	28 35
Beans, string, 72½ bushels,	58 00
Beets, 345 bushels,	207 00
Beets, 100 bunches,	5 00
Beet greens, 152 bushels,	53 70
Cabbage, 4 tons,	100 00
Carrots, 15 bushels,	11 25
Cauliflower, 13¾ boxes,	17 00
Celery, 67 boxes,	60 30
Corn, green, 1,126 bushels,	1,126 00
Cucumbers, 30½ boxes,	22 80
Dandelions, 74½ bushels,	30 75
Egg plant, 1¼ barrels,	3 75
Kale, 39 bushels,	11 70
Lettuce, 231 boxes,	115 50
Onions, 71 bushels,	78 10
Parsley, 8 bushels,	4 00
Peas, 70 bushels,	140 00
Pepper grass, 25 bunches,	50
Peppers, 5 bushels,	3 75
Potatoes, 1,280 bushels,	1,152 00
Pumpkins, 1,000 pounds,	30 00
Radishes, 421 dozen,	126 30
Rhubarb, 9,000 pounds,	180 00
Spinach, 25 bushels,	10 00
Squash, winter, 182¾ barrels,	182 75
Squash, summer, 15¾ barrels,	15 75
Tomatoes, ripe, 88¾ bushels,	66 56
Tomatoes, green, 51 bushels,	25 50
Turnips, white, 64 barrels,	70 40
Turnips, ruta-baga, 130 barrels,	143 00
Apples, 72½ barrels,	181 25
Currants, 156 boxes,	17 16
Pears, 45 bushels,	45 00
Plums, 136 boxes,	40 80

Raspberries, 40 boxes,	\$6 00
Strawberries, 2,554 boxes,	306 48
Blackberries, 310 boxes,	43 40
Grapes, 180 pounds,	7 20
<hr/>	
Total,	\$4,741 00

FARM PRODUCTS.

Ensilage, 200 tons,	\$800 00
Fodder, green, cabbage, 12 tons,	60 00
Fodder, green, corn, 5 tons,	25 00
Fodder, green, clover and alfalfa, 199 tons,	1,194 00
Fodder, green, millet, 47½ tons,	237 50
Fodder, green, oats, barley and peas, 43 tons,	215 00
Fodder, green, rye, 20 tons,	100 00
Hay, English, 130 tons,	2,730 00
Hay, meadow, 12 tons,	252 00
Rye, straw, 4 tons,	96 00
Beef, 5,344 pounds,	320 64
Milk, 184,018⅝ quarts,	11,841 11
Pork, 25,733 pounds,	2,315 97
Ice, 850 tons,	2,550 00
Sale of condemned cows, hides, calves and tallow,	135 08
Sundries,	66 00
<hr/>	
Total,	\$22,938 30
Garden products,	\$4,741 00
Farm products,	22,938 30
<hr/>	
Total,	\$27,679 30

REPORT OF WORK DONE IN THE MEN'S INDUSTRIAL ROOMS

FOR THE YEAR ENDING NOV. 30, 1911.

<i>Articles manufactured.</i>			
Brooms, corn,	325	Chairs caned, various styles,	120
Brooms, rattan,	9	Chairs scraped and varnished,	92
Brooms, whisk,	18	Chairs upholstered,	9
Brushes, floor polishing, Tampico,	36	Commodos,	9
Brushes, horse, corn,	12	Cushions,	5
Brushes, long handled scrub, Tampico,	34	Floor brushes, handles put in,	18
Brushes, radiator, Tampico,	2	Floor polishers,	22
Brushes, stove, Tampico,	22	Floor polishers refilled, bristles,	5
Cushions, leatherette,	18	Hair, new picked (pounds),	4,800
Mats, coir braid,	28	Hair, old, sterilized and picked (pounds),	10,600
Mats, coir yarn,	16	Hand bag, leather,	1
Mat loom, complete,	1	Lounge,	1
Mattresses, single, hair,	250	Massage table top upholstered,	1
Pillows, hair,	60	Mattresses, double, hair,	6
Rugs, hooked,	9	Mattresses, single, hair,	520
Window shades, made and fitted,	120	Mop handles,	19
<i>Articles renovated.</i>		Pillows, hair,	450
Automobile seats and back,	1	Settees caned,	2
Boots, men's (pairs),	60	Settee, new top,	1
Bureaus,	28	Shades,	80
Carpets,	4	Shoes, men's (pairs),	403
Carriage seats,	4	Slippers, men's (pairs),	82
Carriage shields,	4	Tables,	57
Chairs,	621	Tents,	4
		Tent flies,	4
		Wardrobes,	13

REPORT OF WORK DONE IN WOMEN'S INDUSTRIAL AND SEWING ROOMS

FOR THE YEAR ENDING NOV. 30, 1911.

Aprons,	1,939	Hemstitching — <i>Concluded.</i>	
Artificial flowers,	262	Doilies,	3
Bed shirts,	48	Table covers,	173
Bibs,	18	Table napkins,	24
Blanket hemmed,	1	Hot water bag covers,	2
Braided straw baskets,	2	Iron holders,	60
Bread basket covers,	2	Jabots,	6
Bureau covers,	72	Kimonas,	25
Burial sheets,	186	Lace, crocheted (yards),	2
Carpet rags (pounds),	10	Laundry bags,	544
Clay models,	2	Laundry bags strings,	12
Chemises,	240	Mattresses,	350
Corset covers,	6	Nightdresses,	1,030
Doilies,	11	Overalls and jumpers,	54
Doilies, crocheted,	4	Pad covered,	1
Doilies, Mexican work,	2	Pajamas,	12
Drawers,	384	Petticoats,	372
Drawn work, pieces,	6	Pillows,	300
Dresses,	447	Pillow slips,	2,520
Dresses overcast,	33	Punctured brass frame,	1
Dress waist,	1	Raffia work: —	
Embroidery: —		Bags,	2
Aprons,	4	Baskets,	7
Baby bibs,	3	Jardinières,	26
Baby pillows,	3	Napkin rings,	4
Belts,	35	Slippers,	10
Centerpieces,	13	Table mats,	4
Collars,	12	Wastebaskets,	3
Corset cover,	1	Workbaskets,	1
Doilies,	29	Reed work: —	
Handkerchiefs,	4	Baskets,	4
Hat,	1	Tea table,	1
Jabots,	8	Wastebaskets,	5
Jewel bags,	3	Workbasket,	1
Napkin rings,	7	Rugs,	3
Pin cushions,	5	Rugs, braided,	2
Pin cushion tops,	3	Rugs hemmed and put in frames,	2
Sachet bags,	4	Rugs, hooked,	4
Towels,	14	Sanitary napkins,	302
Face cloths, crocheted,	6	Screen covers,	30
Hemstitching: —		Shades,	18
Bureau covers,	110	Sheets,	2,870
Commode covers,	12	Shirts,	144

Sofa pillows,	6	Suspenders,	130
Spread hemmed,	1	Tablecloths,	55
Stencilling: —		Table and stand covers,	152
Bureau scarf,	1	Table napkins,	96
Pillow cover,	1	Towels,	5,605
Sofa pillows,	8	Wastebaskets, fancy braid,	2
Table cover,	1	Mending.	
Straw hats,	10	Making bandages and nurses' caps.	

REPORT OF WORK DONE ON WOMEN'S WARDS

FOR THE YEAR ENDING NOV. 30, 1911.

Aprons,	1,550	Raffia work — <i>Concluded.</i>	
Bibs,	90	Picture frame,	1
Bureau covers,	65	Pin trays,	2
Buttonholes,	40	Rowboat,	1
Carpet rags (pounds),	93	Sandals (pairs),	3
Dresses,	18	Table covers,	3
Dust cloths,	12	Wastebaskets,	2
Hemstitching: —		Workbag,	1
Bureau covers,	56	Workbaskets,	6
Doilies,	4	Rugs, braided,	5
Stand covers,	144	Rugs, hooked,	3
Table covers,	10	Rugs, rag,	2
Towels,	12	Sanitary napkins,	598
Windows curtains (pairs),	14	Screen covers,	21
Iron holders,	133	Sheets,	3,554
Jabots, crocheted edge,	12	Shirts,	19
Laundry bags,	24	Spreads,	36
Laundry bag strings,	24	Suspenders,	202
Nightgowns,	41	Tablecloths,	28
Nightshirts,	6	Table covers,	283
Petticoats,	132	Table napkins,	496
Pillows made over,	22	Towels,	2,143
Pillow slips,	2,241	Undershirts,	36
Raffia work: —		Wrappers,	18
Baskets, small,	6	Picking hair.	
Canoe,	1	Making bandages and sponges.	
Curtain loops (pairs),	48	Marking clothing, etc.	
Jardinières,	5		

STATISTICAL TABLES.

[FORM PRESCRIBED BY STATE BOARD OF INSANITY.]

1. — General Statistics of the Year.

	INSANE.			TEMPORARY CARE.			AGGREGATES.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Patients in the hospital Sept. 30, 1910.									
Viz.: regularly committed,	376	475	851	8	2	10	384	477	861
emergency,	375	471	846	-	-	-	375	471	846
voluntary,	-	-	-	-	-	-	-	-	-
temporary care,	1	4	5	-	-	-	1	4	5
Admitted within the year,									
Viz.: by regular commitment,	204	322	526	8	2	10	8	2	10
emergency,	158	247	405	158	78	236	362	400	762
voluntary,	3	2	5	-	-	-	158	247	405
temporary care,	9	14	23	-	-	-	9	14	23
viz.: observation,	-	-	-	158	78	236	158	78	236
by transfer,	-	-	-	5	7	12	5	7	12
from visit,	4	1	5	153	71	224	153	71	224
from escape,	5	13	18	-	-	-	4	1	5
Nominal admissions for discharge,	2	2	4	-	-	-	5	13	18
Viz.: from visit,	23	43	66	-	-	-	2	2	4
from escape,	23	43	66	-	-	-	23	43	66
Whole number of cases within the year,									
Dismissed within the year,	580	797	1,377	-	-	-	-	-	-
Viz.: discharged,	229	285	514	166	80	246	746	877	1,623
as recovered,	56	105	161	162	78	240	391	363	754
as capable of self-support,	31	35	66	160	75	235	216	180	396
as improved,	10	5	15	38	14	52	69	49	118
as not improved,	7	41	48	7	5	12	10	5	15
as not insane,	8	21	29	109	45	154	14	46	60
died,	-	3	3	6	11	17	117	66	183
transferred,	52	88	140	2	3	5	6	14	20
escaped,	68	28	96	2	3	5	54	91	145
on visit October 1,	5	-	5	-	-	-	68	28	96
Nominal dismissals for commitment,	48	64	112	-	-	-	5	5	10
	-	-	-	-	-	-	48	64	112

1. — General Statistics of the Year — Concluded.

	INSANE.			TEMPORARY CARE.			AGGREGATES.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Patients remaining Sept. 30, 1911,									
Viz.: regularly committed,	351	512	863	4	2	6	355	514	869
emergency,	348	505	853	—	—	—	348	505	853
voluntary,	3	7	10	—	—	—	3	7	10
temporary care,	—	—	—	—	—	—	—	—	—
supported as State patients,	314	418	732	4	2	6	318	420	738
as reimbursing patients,	11	34	45	—	—	—	11	34	45
as private patients,	26	60	86	—	—	—	26	60	86
Number of different persons within the year,	555	749	1,304	162	79	241	717	828	1,545
Number of different persons admitted,	181	278	459	155	77	232	336	355	691
Number of different persons admitted, from the community,	170	262	432	155	77	232	325	339	664
Number of different persons dismissed,	206	241	447	159	66	225	365	317	682
Number of different persons dismissed, from the community,	138	213	351	160	75	235	298	288	586
Number of different persons recovered,	31	35	66	38	14	52	69	49	118
Number of different persons capable of self-support,	10	5	15	—	—	—	10	5	15
Daily average number of patients,	354.42	490.57	844.99	4.82	3.67	8.49	359.24	494.24	853.48
Viz.: State patients,	314.49	409.47	723.96	4.82	3.67	8.49	319.31	413.14	732.45
reimbursing patients,	15.09	28.18	43.27	—	—	—	15.09	23.18	38.27
private patients,	24.84	52.92	77.76	—	—	—	24.84	52.92	77.76
Whole number of emergency admissions,	—	—	—	—	—	—	10	14	24
Whole number of voluntary admissions,	—	—	—	—	—	—	9	16	25
Daily average number of voluntary patients,	—	—	—	—	—	—	2.05	6.20	8.25
Whole number of temporary care admissions,	—	—	—	—	—	—	205	137	342

1a. — Temporary Care Statistics for the Year.

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1910,	8	2	10
Admissions from Oct. 1, 1910, to Oct. 1, 1911,	205	137	342
Viz.: chapter 504, Acts of 1909, section 34,	4	1	5
chapter 504, Acts of 1909, section 43,	5	7	12
chapter 504, Acts of 1909, section 44,	11	15	26
chapter 307, Acts of 1910,	169	92	261
chapter 395, Acts of 1911,	16	22	38
Whole number of cases within the year,	213	139	352
Discharges from Oct. 1, 1910, to Oct. 1, 1911,	209	137	346
Viz.: recovered,	38	14	52
improved,	7	5	12
unimproved,	10	4	14
died,	2	3	5
not insane,	6	11	17
deported,	1	—	1
committed to Boston State Hospital,	47	59	106
committed to Danvers State Hospital,	37	8	45
committed to Worcester State Hospital,	27	17	44
committed to Westborough State Hospital,	19	12	31
committed to Taunton State Hospital,	3	2	5
committed to Monson State Hospital,	2	—	2
committed to McLean Hospital,	1	—	1
committed to Dr. Mellus' Sanitarium,	1	—	1
returned to Bridgewater State Farm,	1	—	1
returned to Medfield State Asylum,	1	—	1
returned to Worcester State Hospital,	—	1	1
returned to Westborough State Hospital,	2	—	2
returned to Monson State Hospital,	1	1	2
returned to Worcester State Asylum,	1	—	1
returned to Danvers State Hospital,	2	—	2
Patients remaining Oct. 1, 1911,	4	2	6
Daily average of temporary care cases,	4.82	3.67	8.49

Provisional Diagnosis in Temporary Care Cases.

	Males.	Females.	Totals.
Alcoholic psychoses: —			
Pathological intoxication,	6	1	7
Delirium tremens,	17	8	25
Polyneuritic psychoses,	2	1	3
Acute hallucinosis,	25	12	37
Chronic delusional,	4	2	6
Chronic alcoholism,	2	2	4
Drug and toxic psychosis: —			
Morphinism,	1	—	1
Dementia præcox,	29	22	51
Allied to dementia præcox,	1	2	3
Paranoic conditions,	17	12	29
Manic-depressive psychoses: —			
Excitement,	23	19	42
Depression,	10	8	18
Involution melancholia,	3	8	11
Senile psychoses,	8	6	14
General paresis,	23	5	28
Epileptic psychoses,	6	—	6
Epilepsy and alcoholism,	2	1	3
Epilepsy,	6	1	7
Imbecility,	—	1	1
Constitutional inferiority,	3	2	5
Psychasthenia,	1	—	1
Hysteria,	1	1	2
Hysterical amnesia,	1	1	2
Depression undifferentiated,	1	2	3
Delirium with heart disease,	1	1	2
Arteriosclerotic brain disease,	1	1	2
Central neuritis,	—	1	1
Apoplexy,	2	1	3
Acute delirium,	—	1	1
Not insane,	6	10	16
Unclassified,	3	5	8
Totals,	205	137	342

2. — *Insane received on First and Subsequent Commitments.*

NUMBER OF COMMITMENT.	CASES COMMITTED.		
	Males.	Females.	Totals.
First to this hospital,	161	219	380
Second to this hospital,	7	25	32
Third to this hospital,	1	12	13
Fourth to this hospital,	—	3	3
Fifth to this hospital,	1	1	2
Sixth to this hospital,	—	3	3
Total cases,	170	263	433
Total persons,	170	262	432
Never before in any hospital for insane,	150	207	357

3. — *Nativeity and Parentage of Insane Persons first admitted to Any Hospital.*

PLACE OF NATIVITY.	MALES.			FEMALES.			TOTALS.		
	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.
Massachusetts,	66	16	17	72	23	20	138	39	37
Other New England States,	11	15	15	15	12	16	26	27	31
Other States,	6	8	10	11	6	6	17	14	16
Total native,	83	39	42	98	41	42	181	80	84
Other countries: —									
Canada,	12	10	11	18	16	17	30	26	28
Cuba,	—	—	—	—	1	—	—	1	—
England,	6	9	5	5	7	7	11	16	12
France,	—	1	—	1	1	1	1	2	1
Germany,	4	8	6	5	11	12	9	19	18
Ireland,	31	61	64	62	97	96	93	158	160
Italy,	3	3	3	3	6	6	6	9	9
Newfoundland,	—	—	—	3	3	3	3	3	3
Norway,	—	—	—	1	1	1	1	1	1
Roumania,	—	1	—	—	—	—	—	1	—
Russia,	7	9	10	5	6	6	12	15	16
Scotland,	2	2	2	—	3	2	2	5	4
South America,	—	—	—	1	1	1	1	1	1
Sweden,	1	2	1	4	4	4	5	6	5
Wales,	—	1	2	—	—	—	—	1	2
Total foreign,	66	107	104	108	157	156	174	264	260
Total native,	83	39	42	98	41	42	181	80	84
Unknown,	1	4	4	1	9	9	2	13	13
Totals,	150	150	150	207	207	207	357	357	357

4. — *Residence of Insane Persons admitted from the Community.*

	FIRST ADMITTED TO ANY HOSPITAL.			OTHER ADMISSIONS.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Massachusetts: —									
Suffolk County,	149	202	351	20	55	75	169	257	426
Middlesex County,	—	3	3	—	—	—	—	3	3
Unknown,	1	—	1	—	—	—	1	—	1
Total resident,	150	205	355	20	55	75	170	260	430
New York,	—	1	—	—	—	—	—	1	—
Connecticut,	—	1	—	—	—	—	—	1	—
Total nonresident,	—	2	—	—	—	—	—	2	—
Cities or towns, 10,000 or over,	150	207	357	20	55	75	170	262	432
Totals,	150	207	357	20	55	75	170	262	432

5. — *Civil Condition of Insane Persons first admitted to Any Hospital.*

	Males.	Females.	Totals.
Unmarried,	65	80	145
Married,	69	77	146
Widowed,	16	44	60
Divorced,	—	6	6
Totals,	150	207	357

6. — *Occupation of Insane Persons first admitted to Any Hospital.*

MALES.

Actor,	1	Nurse,	1
Artist,	1	Painters,	6
Barbers,	2	Paper cutter,	1
Bartender,	1	Peddlers,	3
Boiler maker,	1	Piano maker,	1
Carpenters,	2	Plumber,	1
Car starter,	1	Roofer,	1
Chauffeur,	1	Salesmen,	7
Clerks,	6	Shoemakers,	2
Druggist,	1	Steam fitters,	2
Engineers,	3	Student,	1
Footman,	1	Steward,	1
Foremen,	2	Surveyor,	1
Grocers,	2	Tailor,	1
Insurance agents,	2	Teachers,	2
Janitors,	3	Teamsters,	13
Laborers,	24	Telegraph operator,	1
Machinists,	5	Tinsmith,	1
Meat cutter,	1	Waiter,	1
Metal polishers,	2	Watch repairer,	1
Motorman,	1		
Newsboy,	1		150
None,	38		

FEMALES.

Boarding house keeper,	1	None,	62
Book binder,	1	Nurses,	2
Bookkeeper,	1	Saleslady,	1
Carpet designer,	1	Scrubwoman,	1
Clerks,	4	Seamstresses,	2
Cooks,	5	Shoemakers,	2
Domestics,	20	Stenographers,	3
Dressmakers,	3	Teacher, school,	1
Housework,	90	Washerwoman,	1
Laundresses,	5		
Music teacher,	1		207

9. — *Probable Duration of Mental Disease before Admission.*

PREVIOUS DURATION.	FIRST ADMITTED TO ANY HOSPITAL.		
	Males.	Females.	Totals.
Congenital,	3	6	9
Less than 1 month,	27	26	53
From 1 to 3 months,	26	40	66
3 to 6 months,	24	18	42
6 to 12 months,	20	16	36
1 to 2 years,	21	32	53
2 to 5 years,	14	38	52
5 to 10 years,	3	16	19
10 to 20 years,	4	6	10
Totals,	142	198	340
Unknown,	8	9	17
Totals,	150	207	357
Average known duration (in years), . . .	1.7	1.54	1.62

10. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died.*

FORM OF DISEASE.	COMMITTED.			DISCHARGED.												DIED.			AGGREGATES.			
	Males.	Females.	Totals.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			Totals.	Males.	Females.	
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.							
A. — First admitted to any hospital: —																						
Psychosis with brain tumor,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Traumatic psychoses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senile psychoses,	29	27	56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	56
General paralysis,	28	17	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45
Psychoses with other brain or nervous diseases,	6	11	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17
Alcoholic psychoses,	31	13	44	17	4	21	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21
Morphinism,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Infective-exhaustive and autotoxemic psychoses,	5	10	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15
Involution melancholia,	3	16	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19
Depressions undifferentiated,	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Dementia præcox,	21	31	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52
Allied to dementia præcox,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Paranoid conditions,	2	22	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24
Manic-depressive psychoses,	10	32	42	10	14	24	2	8	10	2	8	10	1	3	4	—	—	—	—	—	—	42
Allied to manic-depressive psychoses,	1	2	3	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Epileptic psychoses,	1	4	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Hysterical psychoses,	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Constitutional psychopathic state,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Constitutional inferiority,	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Imbecility,	3	3	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
Unclassified,	2	13	15	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15
Not insane,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	150	207	357	27	25	52	5	2	7	6	25	31	7	17	24	—	3	3	—	46	73	119
																91	148				239	

10. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died*
— Concluded.

FORM OF DISEASE.	COMMITTED.			DISCHARGED.												DIED.			AGGREGATES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	Males.	Females.	Totals.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			Totals.	Males.	Females.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
B. — Other admissions: —																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

11. — Discharges of the Insane classified by Admission and Result.

NUMBER OF THE ADMISSION.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			DIED.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	29	26	55	6	3	9	6	27	33	8	19	27	-	3	3	51	77	128	100	155	255
Second,	2	4	6	1	2	3	-	10	10	-	1	1	-	-	-	-	8	8	3	25	28
Third,	-	-	-	1	-	1	-	2	2	-	-	-	-	1	1	-	1	1	1	3	4
Fourth,	-	2	2	1	-	1	1	-	1	-	-	-	-	-	-	-	1	1	2	3	5
Fifth,	-	3	3	-	-	-	-	2	2	-	1	1	-	-	-	-	1	1	-	7	7
Sixth,	-	-	-	1	-	1	-	-	-	-	-	-	-	1	-	1	-	1	2	-	2
Totals,	31	35	66	10	5	15	7	41	48	8	21	29	-	3	3	52	88	140	108	193	301
First admissions to any hospital,	27	25	52	5	2	7	6	25	31	7	17	24	-	3	3	46	73	119	91	145	236

12. — Cause of Death and Form of Mental Disease in Persons who died.

CAUSES.	AGGREGATES.			CEREBRAL TUMOR.			SENILE PSYCHOSES.			DEMENCIA PARALYTICA.			CENTRAL NEURITIS.			CEREBRAL ARTERIO-SCLEROSIS.			ACUTE ALCOHOLIC HALLUCINOSIS.			DRUG PSYCHOSIS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
General diseases: —																								
Carcinoma of breast and enteritis,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carcinoma of breast and tumor of dura,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diabetes mellitus with broncho-pneumonia,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas facialis,	—	2	2	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia decubitus,	—	4	4	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septic cellulitis of face and neck,	—	1	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nervous system: —																								
Central neuritis,	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Cerebral tumor,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exhaustion of manic-depressive insanity,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exhaustion of chronic mental disease,	5	—	5	—	—	—	4	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dementia paralytica,	14	17	31	—	—	—	—	—	—	14	17	31	—	—	—	—	—	—	—	—	—	—	—	—
Status epilepticus,	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tumor of pituitary body and broncho-pneumonia,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—
Circulatory system: —																								
Aortic thrombosis,	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arteriosclerosis, *	10	3	13	—	—	—	10	1	11	—	—	—	—	—	—	2	2	—	—	—	—	—	—	—

13. — Duration of Mental Disease and its Treatment in Persons who recovered or died.

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.					
	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION.			WHOLE KNOWN PERIOD OF MENTAL DISEASE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
A. — Recovered: —												
Under 1 month, . . .	12	6	18	2	—	2	1	—	1	—	—	—
From 1 to 3 months, . .	6	9	15	13	12	25	9	5	14	1	—	1
3 to 6 months, . . .	6	3	9	3	8	11	5	7	12	—	—	—
6 to 12 months, . . .	2	3	5	3	4	7	4	6	10	2	4	6
1 to 2 years, . . .	1	3	4	6	—	6	7	5	12	—	4	4
2 to 5 years, . . .	—	1	1	—	1	1	1	1	2	—	2	2
Over 5 years, . . .	—	—	—	—	—	—	—	1	1	1	—	—
Totals, . . .	27	25	52	27	25	52	27	25	52	4	10	14
Average of known cases (in months),	2.3	3.96	6.26	6.18	5.85	12.03	8.44	9.81	18.25	24.75	15.70	40.45
										13.	14.63	27.63

B. — Died: —

[illegible]

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FOURTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL,

FOR THE YEAR ENDING Nov. 30, 1912.



BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,

18 POST OFFICE SQUARE.

1913.

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APPROVED BY
THE STATE BOARD OF PUBLICATION.

202.2
211.35
1911/12

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TRUSTEES

OF THE

BOSTON STATE HOSPITAL.

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PSYCHOPATHIC DEPARTMENT

OF THE

BOSTON STATE HOSPITAL.

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ABRAHAM MYERSON, M.D.,	Assistant Physician.
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FRANK C. W. KONRAD, M. D.,	Interne, September to November.
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EDITH DE MAURIAC,	In charge of special companionship work with patients.
L. EUGENE EMERSON, Ph.D.,	Special Examiner in Psychopathology.
LYDIARD H. HORTON, A.B., A.M.,	Interne in Psychopathology.
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JESSIE M. BUIST,	Superintendent of Nurses.
JOSEPHINE G. SHERBURNE,	Matron.
CHARLES H. BUTTRICK,	Male Supervisor.

¹ Resigned.

² Salary paid by eugenics record office, Cold Spring Harbor, N. Y.

The Commonwealth of Massachusetts

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to present herewith their fourth annual report.

RAPID GROWTH OF THE HOSPITAL.

The present Board of Trustees took charge of the hospital Dec. 1, 1908. At that time there were 748 patients under treatment. On November 30 of the present year, without counting the patients at the psychopathic department, there are 1,185, a gain of 58 per cent. in four years; including the patients in that department, the total is 1,268, or a gain of 70 per cent. This rapid increase in size is in accord with the policy of the trustees and the Board of Insanity. Last year the following statement was made in the annual report: —

Situated as the Boston State Hospital is, in the metropolitan district, which furnishes a large percentage of the admissions to all the hospitals, and with a psychopathic department for the first care and observation of acute cases, both the trustees and the Board of Insanity are of the opinion that this institution must be looked to, to provide for a constantly increasing number of patients, especially of the more acute and excited type, who should be removed as short a distance as possible from their homes.

SPECIAL APPROPRIATIONS.

Fortunately, the special appropriations asked for last year were granted, with the exception of that for farm buildings. It was late in the legislative session before these appropriations were

made, and work on the new buildings in consequence began very late. The much-needed building for disturbed women cannot be finished before a year from the present time. The home for men nurses is nearly completed, and the service building will be in use by early spring. It is unfortunate that the special appropriations cannot be made early in the session instead of late, as much valuable time for building operations is lost.

This year a large sum is asked for under this head, which is necessary if the trustees are to put into execution the policy of rapid development which, as already stated, has been agreed on as desirable for this hospital. The most important item is that of \$157,000 for a heating, light and power plant. The plan is to extend the present boiler house at the east group and install a conduit and piping to serve the entire institution. We have now reached a stage in our development when a solution of the heating problem is imperative. The small plant at the west group cannot be further enlarged. Temporary heating plants have been placed in the two buildings so far added to this group, but it is manifestly unwise to continue adding such plants. A new heating plant of considerable size will be necessary for the west group alone. A way has been sought to utilize one plant for both groups, in the belief that the saving in operating expense will more than offset the cost of installing long-distance transmission lines. After carefully considering a variety of plans the trustees have decided that, both as a matter of economy and convenience, the best course to pursue will be to enlarge the plant at the east group, which is so placed that it can send steam to every building site on the premises and get gravity returns. It is near the service building, which has a refrigerating plant, the laundry and the proposed kitchen and dining-room building, and easier of access for coal teams and employees than any other location. Plans and specifications covering this work have been prepared.

In accordance with the general plan of development the following buildings are necessary: A reception building for 48 male patients, to cost \$52,000. These patients will be largely of the acute class and will require more single rooms than chronic cases. The superintendent, in his report, calls special attention to the need of this building. Four cottages in the men's industrial group, each to accommodate 26 patients, \$64,000. Two cottages

for farm patients, each for 52 patients, \$62,000. These cottages will be near the farm buildings. They will be occupied by patients now lodged in more expensive quarters, and will provide better classification and facilitate the employment of the patients. A dining-room building for the patients in the industrial and farm groups, which will later be used for a proposed infirmary building, to cost \$18,000. A kitchen and dining-room building for patients and employees in the east group, to cost \$42,000. The present kitchen in the basement of the chapel is inadequate, and the use of the chapel and entertainment hall as a dining room for patients and employees is very objectionable. The building asked for will provide these service features in a convenient fashion and leave the chapel available at all times for its proper use. A home for women nurses is urgently needed. These nurses now occupy crowded quarters in the administration building, in the wards, and in the "E" building, now used for women but which it is planned to use for male patients. The home will cost \$60,000. A group of farm buildings, comprising a cow barn and dairy, a horse stable and storage barn, \$38,500. Attention was called to the need of these buildings in the report of 1911 as follows: —

The farm buildings were old when the city acquired the property, and are now dilapidated and not worth repairing. They stand on sites needed for ward buildings, are inconveniently placed for administration, and are much too small for present needs. Their proximity to the hospital buildings is unpleasant and unsanitary. If we are to continue to produce our own milk, as is desirable, both for economy and health, a sanitary dairy barn is an absolute necessity, and one that cannot be safely ignored.

Milk is one of the most important articles of food for patients, and they should have plenty of it. With the addition of the psychopathic department our barn is far too small to supply the immense quantity necessary, and the hospital will be obliged to spend several thousand dollars this year in its purchase. The old barn and stable, not over 100 feet distant from the infirmary, are, on hygienic grounds, a menace to health. Other items asked for are as follows: for the extension of water and sewer systems to proposed new buildings, \$10,500. The necessity of this item is expressed in its title. The size of water mains is governed by the requirements for fire protection, as well as for house service,

and to avoid the possibility of shutting off the supply from accident, the proposed main extends through the grounds from one street main to the other for double end connection. For laying waterproof floors and installing new plumbing fixtures in the toilet and bathrooms of the Fisher building, \$6,000. This sum is necessary to replace worn and unsanitary equipment with new; also to provide more fixtures because of the increased number of patients to be served. For renovating "C" building, from which chronic disturbed women are to be removed, \$5,000. This building has for years been occupied by the most violent and destructive class of patients. These are now to be removed to a new building, and convalescent cases are to occupy their old quarters. A thorough renovation is necessary throughout the building, including new floors in corridors, day rooms, dining rooms, etc., replacing battered woodwork with new, repairing plastering, painting walls and ceilings, and laying new floors and fixtures in the toilet rooms. For a boundary wall and fence, Walk Hill Street, \$10,000. The retaining wall needs to be rebuilt, as it serves for the foundation of the street sidewalk and is in such bad condition as to be dangerous. The whole line of fence along this street is in the last stages of dilapidation and should be renewed in a substantial manner. Such enclosure of the grounds is considered necessary in the interest of the patients. For a fire alarm system, \$1,200. There is need of a reliable method for sounding an alarm in addition to the use of the telephone. The system specified would include a signal box in each of the buildings, ringing alarm gongs at the administrative centers, at the engine room and in employees' quarters. For walks and planting, \$2,000. This sum will provide a walk from the entrance gate to the main office; also walks for the patients' use in taking exercise, and to connect the separated hospital groups. Planting of trees and shrubbery is necessary, especially along the street margins to screen the ward buildings. A special supplementary appropriation is asked for, for books and apparatus, not properly items of maintenance, at the psychopathic department, \$8,500. This is needed to complete the equipment of the library and laboratories.

Summary of Appropriations for 1913.

Maintenance,	\$404,500
For the main hospital,	\$305,500
For the psychopathic department,	99,000
Heating, light and power plant for entire institution,	157,000
Reception building for 48 male patients,	52,000
Four cottages in men's industrial group,	64,000
Two cottages for farm patients,	62,000
Dining room for industrial and farm groups,	18,000
Kitchen and dining-room building for patients and employees in east group,	42,000
Home for women nurses,	60,000
Farm buildings,	38,500
Extension of water and sewer systems to proposed new build- ings,	10,500
Waterproof floors and new plumbing in Fisher building,	6,000
Renovating "C" building,	5,000
Boundary wall and fence, Walk Hill Street,	10,000
Fire alarm system,	1,200
Walks and planting,	2,000
Special appropriation for books and apparatus at the Psycho- pathic Hospital,	8,500

PSYCHOPATHIC HOSPITAL.

This department of the hospital was opened June 24, and from the opening day has received a steady influx of patients, averaging over 100 a month. This large number of admissions has naturally demanded an enormous amount of work, as each patient has required immediate examination to determine questions of transfer, detention for observation, or committal. Many difficult questions of management have arisen, for a general hospital for mental cases is practically a new kind of institution. All concerned have done their best, and the trustees are confident that the high ideals of a psychopathic hospital, which are cure, prevention, diffusion of knowledge and social service, will be realized. The director has been fortunate in obtaining the services of men of the highest rank to work with him as assistant physicians, laboratory workers, externes and internes. In the outpatient department in particular, a number of very able men have been secured, who have already demonstrated the need of studying and treating mental cases before they develop into hos-

pital cases. The hospital has helped these men by temporarily caring for patients who cannot make sufficiently frequent visits to the out-patient department, and, on the other hand, investigations have been made by these specialists into the causes of the attacks for which patients are admitted to the wards. The out-patient department promises to become an important center of social service, with unlimited opportunities for the investigation of the causes of mental disease and defect. As an ultimate result we have every reason to anticipate an earlier and more intelligent method of treatment which will reduce hospital admissions by cure or prevention.

As has already been said in a previous report, it is not expected to run this hospital at a small per capita cost, and in considering the expense of maintenance comparisons should be made with general hospitals like the Massachusetts General and the City Hospital and not with State insane hospitals. It must be remembered that though the number of beds is small, the admission rate far exceeds that of our largest State hospital. This means that patients are constantly passing through the hospital, and each one requires immediate examination, attention and constant oversight. One unfamiliar with the care of mental cases cannot realize how much time each new patient demands, and the enhanced expense of such large numbers of new cases. To quote from a recently published paper by the chairman of this Board: —

It [the psychopathic hospital] has got to be, in every sense of the word, on a par with a general city hospital, and that means many physicians, many nurses, expensive treatment, expensive food. To be a success, no expense should be spared. The justification for this is the fact that if the hospital accomplishes all that it should there will be a considerable increase in the recovery rate, and eventually much mental disease prevented. The State is sure to see the force of this argument when it realizes the fact that each incurable insane person means, on the average, an expense of probably \$2,000. It may be said, however, to the credit of Massachusetts, that in establishing this psychopathic hospital, motives of humanity and not economy have influenced her.

The director, in the few months since the opening, has already inaugurated many lines of valuable work, and by his varied attainments has aroused great interest in the objects for which the hospital stands.

OCCUPATION.

Special mention should be made of the steady progress in this department. Three years ago comparatively few patients were engaged in industrial pursuits. At the present time, as will be seen by reference to the superintendent's report, the number is large, and a surprising variety of new kinds of useful occupation has been developed. The industrial building for women, which is especially bright and cheerful, has attracted large numbers of women, and in every way demonstrated the urgent need for such a building.

ADMINISTRATION.

The medical superintendent has been untiring in his efforts to carry on the work of the hospital on a high plane. On his shoulders has rested the burden of looking after the construction and equipment of new buildings and organizing medical and nursing staffs. From the beginning he watched over the building of the new psychopathic hospital, and had it equipped, organized and ready to receive patients at the earliest possible moment. In addition to these onerous duties he has looked after innumerable details of hospital administration, obtaining results which entitle him to the highest praise. In every department he has been ably and faithfully seconded by the officials of the hospital staff, and the trustees take this opportunity of expressing their appreciation. Full reports of hospital operations for the current year will be found in the appended reports of the superintendent, director and treasurer.

Respectfully submitted,

WALTER CHANNING.
HENRY LEFAVOUR.
HENRIETTA LOWELL.
KATHARINE G. DEVINE.
MICHAEL J. JORDAN.
LEHMAN PICKERT.
MELVIN S. NASH.

SUPERINTENDENT'S REPORT.

To the Trustees of the Boston State Hospital.

I have the honor to submit herewith the fourth annual report of the hospital, for the year ending Nov. 30, 1912, together with the statistics prescribed by the State Board of Insanity, which are for the year ending September 30.

There were 869 patients in the hospital at the beginning of the statistical year; the admissions numbered 1,191, the dismissals 674, deaths 150, leaving 1,236 at the close of the year.

The daily average number of patients was 1,015, of whom 874.28 were State charges, 60.72 reimbursing, and 80 private; 1,950 different persons were patients in the hospital during the year.

There were 10 emergency, 93 voluntary, and 315 temporary care cases admitted, and in addition to these, 230 cases committed to this hospital from temporary care, making a total of 545 cases admitted to the temporary care service.

Exclusive of temporary care cases, transfers and returns from visit, etc., and excluding also 4 voluntary cases not insane, 651 patients were received, of whom 590 were admitted for the first time, 45 for the second time, and 16 for the third to sixth time.

The cases never before in any hospital for the insane numbered 540. The following data refer to these cases only as is customary.

Two hundred and forty-three, or 45 per cent., were foreign born, and 368, or 68+ per cent., were of foreign parentage on one or both sides.

The average age on admission was 43.66 years; 19.4 per cent. were sixty years of age or more. Five cases were over eighty years old on admission.

The exciting cause of the mental disease was noted in 337 of these cases; the cause was unascertained in 203. Of ascertained causes, alcohol comes first, being assigned in 90 cases as the chief cause, and in 13 others as contributing; syphilis was responsible

for 64; senility for 54; arteriosclerosis for 28; pregnancy and childbirth were the causes in 14 cases; tuberculosis in 10.

As all of the above are causes which can practically be excluded as not present in the cases with cause unknown, their percentage frequency is figured on the whole number of first admissions, as follows: alcohol, 19 per cent.; syphilis, 11.8 per cent.; senility, 10 per cent.; arteriosclerosis, 5.3 per cent. Altogether, physical diseases and injuries, including pathological senility as a condition of disease, were accountable for 35+ per cent. of the cases under consideration, without taking account of alcohol and drug addiction as causes.

Heredity as a factor in the causation of mental disease cannot be estimated from the figures which appear in our statistical tables, as reliable data on this subject are obtainable only through extended investigation by the methods of "field work," and even these are fruitless in a large proportion of the families from which our patients come. It was considered wiser to concentrate our field worker's efforts on a selected group of cases, concerning which some valuable facts were gathered. In the 540 first admissions this year, insane and neurotic heredity figures as a predisposing cause in 142, or 26+ per cent.

There were among the first admissions 67 cases of general paralysis, or 12.4 per cent., of whom 6 were women; 75 cases of dementia præcox, or 14 per cent.; and 55 cases of manic-depressive insanity, or 10— per cent.; these, with the alcoholic psychoses, being the forms most largely represented.

The discharges, exclusive of transfers, and not including temporary care cases, which are separately considered, numbered 241. Of these, 87 were recovered and 97 improved, including 12 cases classed as "capable of self-support." The recoveries were only 13 per cent. of the number committed, of which, however, as many as 60 per cent. could be recognized on admission as hopeless or as cases with unfavorable prognosis, these including all with organic brain disease, cases with original mental defect, the senile, and the dementia præcox and paranoic groups.

There were 150 deaths, five of them in the temporary care service. Excluding these, the deaths were 8.3 per cent. of the whole number of committed cases, 14.4 per cent. of the daily average number under treatment, and 22.2 per cent. of the com-

mitments. General paralysis was the cause of death in 23 cases, other diseases of the nervous system in 10, broncho-pneumonia in 31, tuberculosis in 19.

The general health of our population, aside from conditions incidental to their disorders, has been good throughout the year. We have not been visited by any epidemic, and have been fortunate in having no communicable disease introduced, with the exception of one case of typhoid fever, from which resulted the infection of a nurse. The strictest observance of hygienic measures cannot protect against occasional infection from without, in view of our liberal policy regarding visiting of patients, which is permitted daily, including Sunday, and allows access of friends to the wards or rooms in most cases, and also the privilege of bringing fruit and other eatables to the patients. Notwithstanding the element of possible danger, it is believed that this policy is right, since it serves the convenience of the public, gives satisfaction to patients, and promotes good feeling and confidence in the hospital among those who have relatives and friends in our care.

Among measures of treatment, emphasis has continued to be placed on occupation therapy. The men's industrial shops were moved from the basement of Fisher building to much better quarters in the new infirmary basement, which is dry, light and airy, and contains more space for the workers and apparatus. Continuing the lines of work mentioned in previous reports, others have been added, both in the men's and the women's work rooms, — making laundry and farm baskets, netting laundry bags, weaving towelling and curtain material, knitting stockings, etc. Weaving on light looms, of which we now have six, occupies a number of patients in the industrial rooms and also in the wards, and the same is true of rug making on frames and of basketry, which are as suitable for ward occupations as sewing.

A pleasurable feature in this department was an exhibit of articles made by patients in the various institutions, under the supervision of the State Board of Insanity, which, under the direction of Dr. Neff, was displayed at this hospital, as at others, for several weeks, and utilized to stimulate interest among patients and employees, as well as to show to our visitors and to the public generally the scope and importance of this phase of hospital treatment.

Hydrotherapy, in many cases combined with massage, is systematically administered by trained operators under direction of the physicians in our well-equipped treatment rooms in Butler building, which have more than justified the expense of their equipment and maintenance and have come to be used more and more as the efficacy of these measures is demonstrated by gratifying results.

GENERAL REVIEW OF THE YEAR'S WORK.

The period covered by this report has been an unusually busy one from the demands made upon the administration in the equipment, organization and utilization of new buildings, increasing the main hospital population more than 300 and adding the important new department, the psychopathic hospital, with its varied needs to be served. All departments have shared the burden of additional work and contributed to the successful performance of this unusual task. The new infirmary was occupied in March, receiving practically all the bedridden and feeble patients of both sexes and permitting not only a much more efficient and satisfactory handling of this class of cases, but also making possible better classification in the general wards, and, in particular, better separation of acute cases and the carrying out of special measures of treatment for these.

The psychopathic department on Fenwood Road was gotten ready for the reception of patients in June, and after a public inspection on the 21st began its service to the community on the 24th of that month. Its program and an account of the many-sided activities now going on there will be furnished by the director.

Alterations in the south wing of Fisher building, begun in mid-summer and completed within a few weeks, have effected a real transformation and given us two commodious, light and cheerful day rooms, a dormitory and a dining room in the place of cramped, ill-ventilated and gloomy quarters, much of which was practically waste space. Here, too, an important result has been better classification and new facilities for observation and treatment, besides added comfort for the patients and much more convenient administration.

THE MEDICAL SERVICE

has been extended to take care of the increased number of patients. With the opening of the infirmary two additional physicians were appointed, Dr. William M. Dobson, who brought to us his experience of three years' service in the Worcester State Hospital, and Dr. Cyril G. Richards, who had served five months in the Bridgewater State Hospital, both having had previous general hospital training. Dr. Joseph H. Toomey, formerly interne at the United States Marine Hospital, and later of the Boston Consumptives' Hospital, was appointed for substitute service, lasting four months, and Dr. John P. H. Murphy, who had been interne at the Taunton State Hospital, was appointed assistant physician August 1. Dr. John E. Overlander, after a service of six months on our staff, resigned January 1 to accept the position of resident physician in the Boston Consumptives' Hospital. His professional work, as well as his personal qualities, had given him a high place in the regard of all his associates, and both the staff and the patients were sorry to lose him. Dr. Canavan, our pathologist, was given six months' leave of absence, which she spent in professional study abroad, returning the 1st of October. During her absence her duties were assumed and most creditably discharged by Dr. Mary E. Morse, heretofore pathologist for the New England Hospital for Women. Dr. Vosburgh, pending organization of a permanent staff for the psychopathic hospital, has discharged the duties of executive assistant in that department since its opening in June, and by his capable attention to the details of administration has rendered valuable service. It is planned that he shall, within a few weeks, resume his regular duties as first assistant physician at the main hospital.

The consulting staff has given us aid and counsel in a number of cases which called for special knowledge and skill, and all of its members have been most kind in responding to our calls upon their time and patience. Two patients were sent to the City Hospital for the more convenient performance of surgical operations by Dr. Blake and Dr. Lund, and one laparotomy was done by Dr. Lund in our operating room.

The dentist, Dr. Whelan, has attended regularly and has ac-

complied much for the comfort and the benefit of the patients, as may be judged from the following report of his work:—

Number of patients operated on,	328
Number of operations,	944
Cleanings,	473
Fillings,	86
Extractions,	210
Miscellaneous treatments, etc.,	38
Anæsthesia, general,	5
Anæsthesia, local,	71
Examinations,	61

THE LABORATORY

has been in active operation throughout the year, and has promoted to an even greater extent than in its first year the more careful diagnosis and treatment of cases in the wards and the maintenance of hospital hygiene. Complete autopsies were performed in 53 cases during the year, out of a total of 140 deaths, exclusive of the psychopathic hospital. The percentage of autopsies to deaths — 37.8 per cent. — indicates earnest effort on the part of the physicians to complete their knowledge of individual cases and to assimilate for their own and others' advantage the invaluable help which this department furnishes. The report of the pathologist gives interesting details of the work accomplished, and outlines certain researches to be undertaken.

THE NURSING STAFF

has at times been overworked, but has at all times responded in the best possible spirit to the extra demands incident to the opening of new buildings, the assimilation of a large addition of untrained members to their force, and occasional shortage in the ranks. It is gratifying to note that in point of stability of the nursing service the figures for this hospital show improvement, and this will, we hope, be furthered as a result of increased compensation for graduate charge nurses, which the trustees have voted to go into effect immediately. Continued effort has been made to secure the service of women nurses in the men's wards, and this policy, while it has not yet reached its full development

with us, is firmly established and with most satisfactory results. At present there are in the main hospital 10 women nurses so employed, and four of the men's wards are in charge of women.

THE TRAINING SCHOOL,

like other departments in the hospital, is experiencing a rapid expansion in size, which has this season necessitated the division of the classes into sections, with consequent doubling of the work of the lecturers and instructors. The school graduated its first male pupil this year, and several other men have reached the senior class, with evidence of capacity and interest warranting the expectation that we can yearly add to our male nursing force a few well-trained graduates, until at least every charge position shall be filled with competent and experienced men whom we shall seek to retain by giving them better pay. The new quarters for the men, soon to be available, should do much to render the hospital service more attractive.

At the graduating exercises, held in the chapel on the evening of June 6, an address was delivered to the graduates by Hon. Melvin S. Nash, member of the Board of Trustees, and the diplomas were presented by Dr. Channing, chairman of the Board.

I invite your attention to the report of the superintendent of nurses, which is appended.

REPAIRS AND IMPROVEMENTS.

A detailed statement of work done by the mechanics during the year would run to inordinate length, so much general repairing being necessary in our older buildings. The larger items only will be mentioned.

The roof of the administration building was repaired and in part resingled; the physicians', nurses' and employees' quarters in this building were thoroughly renovated, which had not been done before in many years, and carpets and other furnishings were added; linoleum was laid in the second floor hallway, and new treads, covered with linoleum, put on the stairs; the entrance hall, the toilet rooms and the superintendent's office were painted. Ward B was thoroughly overhauled, the plastering repaired, walls and ceilings painted, the old toilet and bathrooms torn out and

refitted with new fixtures and waterproof floors. The west center offices and entrance hall were painted; also the connecting corridors to the wards, as were the corridors between the chapel and adjoining buildings at the east group. New quarters for the men's industries were fitted up; the old carpenter shop was converted into a dining room for working patients; a ventilating fan was put in the east kitchen, and alterations, repairs and painting done in the west kitchen; new platform scales for weighing coal were installed; the old laundry was equipped with machinery and made into shops for the carpenters and engineers, and a paint shop was equipped in the basement of the new laundry; a new mangle, body ironer and cuff and neck-band presses were placed in the laundry. Four thousand seven hundred and thirteen square feet of granolithic walk and granolithic floors were laid. In addition to work done at the main hospital, the engineers, carpenters, painter and mason have spent much time at the psychopathic department attending to work not included in the building contracts.

FARM AND GROUNDS.

The swampy meadow has been further cleared and more of it brought under cultivation. Now that the work of the sewer department on the brook is completed, better drainage will enable us soon to have all of this area productive as well as sightly. Most of the material excavated and left on the banks of the water course has been removed and spread over the low land. A remarkably fine crop of corn was grown on a portion of this land the past summer.

A large party of patients have worked throughout the season on the grounds surrounding the infirmary, grading, planting trees and shrubs, making a lawn and building roads. Similar work was done elsewhere on the grounds with increasing efficiency. Continued activity in building will provide plenty of employment of this sort for a long time to come, which is well for the patients, and their efficient performance of it is of economic importance.

We had the misfortune to lose almost all of our hogs from an epidemic of swine plague last spring. The herd has been replenished with young stock and will soon be yielding pork again, the lack of which was a large item in the high cost of living that has

troubled all institution managers this year. The crops were good, except early vegetables, which failed again this year on account of drought. The herd of cows, all that we have stable room for, is not sufficient for the needed supply of milk since the hospital has grown in size, and until we get a new dairy barn about one-third of the milk used will have to be purchased.

THE NEW BUILDINGS

for which appropriations were granted by the Legislature this year are all in process of erection. The building for 120 women patients is not so far advanced as the others, but its walls are rising with fair rapidity and it is hoped that at least a portion of it can be roofed over this winter. The building for supplies, cold storage and bakery is making good progress and should be available before spring, while the attendants' home lacks only the floor and interior finish, and is expected to be occupied by the 1st of January. The transmission line for lighting and power current between the east and west groups has been erected, and all is in readiness for the installation of the new alternating current dynamo and engine which will enable us to light the entire hospital from one plant. An electric elevator is being installed in the infirmary, completing the equipment of this building and supplying a feature which has been greatly missed, since so many feeble patients have to be taken up and down stairs there.

THE BUILDING PROGRAM

for next year, as outlined by the trustees and discussed in their report, is an extensive one, but all the items asked for are needed at this time in pursuance of the policy to expand this hospital with reasonable celerity to a capacity commensurate with the demands upon it, and in so doing to provide facilities for proper and economical service.

A central heating plant is logically the next step in the development of the institution, and one which commends itself to the best business judgment of all concerned in the careful study given this subject during several years past. Cottages for 200 male patients capable of employment out of doors and in the shops will improve our classification, facilitate work and treatment, and,

by releasing for other purposes the more expensive quarters now occupied by this class of patients, will prove an economical way to provide the additional capacity that is needed. A reception building for male patients in the east group will supply suitable and properly equipped wards for the separate care and treatment of acute and recent cases upon which it is important to concentrate remedial effort, and it will inaugurate the policy, long since decided upon, of constituting this group the convalescent and reception center for both sexes, and eliminating from it such asylum features as are entailed by the close association of large numbers of chronic patients. The kitchen and dining rooms asked for, the home for women nurses, and the group of farm buildings represent urgent needs presented in detail in the trustees' report, as do the other items which complete the list of requirements, — the renovation of ward building "C;" replacing old plumbing in the Fisher building; enclosing the grounds on Walk Hill Street; planting of trees and shrubs; and laying granolithic walks. It is earnestly hoped that the need of the psychopathic department for additional apparatus and books to complete its equipment will receive favorable consideration.

MAINTENANCE ESTIMATES.

The amount expended for maintenance was \$305,932.52, which, divided by the daily average number of patients, 1,080.81, makes the weekly per capita cost \$5.428. Receipts for board of private patients were \$19,157.43; from reimbursing patients, \$9,346.98; from sales and other sources, \$795.27, making the total income \$29,299.68.

Deducting receipts from gross expenses, the net cost of maintenance was \$276,632.84, which, divided by the above average number of patients, gives a net weekly per capita cost of \$4.908.

The above statement includes the psychopathic department, which, on account of its special features, should be figured separately. For the main hospital alone the amount expended for maintenance was \$268,427.94, which, divided by the daily average number of patients, 1,051.40, makes the gross weekly per capita cost \$4.896.

The expense of maintenance for the coming year is estimated at \$305,500 for the main hospital and \$99,000 for the psychopathic department, or \$404,500 altogether.

OFFICIAL VISITS

were paid by His Excellency the Governor, the Lieutenant-Governor and Council, the committee on Public Charitable Institutions, the members of the State Board of Insanity, its executive officer, Dr. Thompson, and its other representatives.

In March the New England Psychiatric Society held its regular meeting at the hospital, and in October the Hospital Trustees' Association met here.

The students of Harvard, Tufts and Boston University Medical schools were admitted for clinics as usual, and also the members of Dr. Cabot's postgraduate course connected with the Harvard Medical School.

ENTERTAINMENT OF PATIENTS.

Diversions have been provided throughout the year, more particularly from October to May, in which period there is a dance every fortnight which the men and women enjoy together. It is our aim to have some other form of entertainment the alternate weeks at each group, these being concerts, recitations, stereopticon lectures, legerdemain, etc., all of which, properly selected, are welcome and beneficial. Some of the women patients are taken out for a carriage ride almost every pleasant day in summer, and at this season there is an occasional picnic or lawn fête; also, during the winter, card parties and other social gatherings are held on the wards and in the industrial room.

Thanksgiving and Christmas were feast days, the latter also an occasion for rather elaborate decoration of the wards and amusement halls and for a special entertainment, with distribution of gifts. Fourth of July is regularly celebrated with a band concert and refreshments on the lawn. Ward games interest a good many patients, but outdoor sports have not been practiced to any extent, because of lack of a suitable baseball ground and athletic field. This is to be included in the development of the grounds now under way, and open air pavilions will also add to the facilities for recreation.

RELIGIOUS SERVICES

have been conducted as usual every Sunday by both the Catholic and Protestant clergymen who attend at the hospital for this purpose, and in addition Father Gallagher, who looks after the spiritual needs of the Catholic patients, makes frequent visits to the wards and attends all of his faith in case of serious illness. The amount expended by the trustees during the year for religious services and attendance, including music, was \$1,112.

ACKNOWLEDGMENTS.

As in previous years we are under obligation to the Dorchester Woman's Club and to the Hospital Music Association for agreeable concerts, and we have occasion to thank for donations of books and magazines Mr. Harry C. Stevens, Mrs. Louis H. Parkhurst, Dr. Mary L. Neff and the Boston Public Library.

In conclusion it is a pleasure for me to record my grateful appreciation of the way in which my fellow officers and many valued employees have labored with me in the performance of our mutual task, in the direction and oversight of which the trustees have continued their sympathetic and helpful interest.

Respectfully,

HENRY P. FROST,

Superintendent.

Nov 30, 1912.

REPORT
OF THE
DIRECTOR OF THE PSYCHOPATHIC DEPARTMENT
OF THE
BOSTON STATE HOSPITAL.

To the Trustees of the Boston State Hospital.

I beg herewith to submit a report upon the psychopathic department of the Boston State Hospital from its opening June 24, 1912, to November 30 as to general operations, and to September 30 as to statistics prescribed by the State Board of Insanity.

I shall leave to the superintendent's report all discussion of the statistical features of the regularly committed cases, so that the operations of the State Board of Insanity's statistical year 1912 may be treated together. It is important to note that the Boston State Hospital in 1911 (the year preceding the opening of the psychopathic hospital) received in all but 762 patients, of whom 433 were regular commitments exclusive of temporary cases, transfers and returns from visit. The psychopathic hospital, on the other hand, has received at a rate exceeding 1,200 per annum during the period available for statistical study. The increase has been distributed over both regular and temporary care cases. Several factors account for the increase: (a) extension of the drainage-area for voluntary and temporary care cases, to include the metropolitan district; (b) abolition, first, of the ten-year and, later, of the five-year period of Boston settlement for regular commitments; (c) increasing employment of the temporary care provisions of the law; (d) resort to the psychopathic hospital by

social agencies for diagnosis of feeble-mindedness; (e) the reputation of the psychopathic hospital with physicians and public. A matter of special interest is the rapidly increasing employment of the voluntary form of commitment.

A novel feature in the new psychopathic hospital service is the very frequent reference of minors for diagnosis of mental defect. Sometimes the diagnosis can be rendered without prolonged observation, merely by out-patient examinations. But, especially in certain juvenile court cases, a period of observation on the wards has proved of value. No greater public service can be rendered at this juncture than the speedy and accurate diagnosis of all grades of feeble-mindedness and especially the slighter degrees ("morons"). It is safe to say that our experience with referred cases will shortly prove the necessity of having resident psychiatrists in those training schools and reformatories which harbor considerable numbers of these morons.

It is to be observed that many cases (30) which have eventually to be classified as delirium tremens do in some way get admitted to the psychopathic hospital, as to the Butler wards before the psychopathic hospital was opened. A still larger number of cases (54) of the allied disease, alcoholic hallucinosis, are admitted under the temporary care law. The latter or hallucinosis group is not specifically excluded by law (as is the delirium tremens group) from admission. It is probably true that the psychopathic hospital is somewhat better able to take care of both these groups of cases than any other local institution, but it is also true that these cases are taken care of at the expense of the nonalcoholic insane, occupying the beds of persons falling more strictly under the authority of the State Board of Insanity. Common humanity and mistaken diagnoses account for most of our admissions of delirium tremens cases. It would seem that a Boston branch of the State hospital for dipsomaniacs should be strongly considered by the proper authorities, and that not only the delirium tremens cases but many other somewhat curable cases of alcoholic psychosis might well be classified at such a branch.

The percentage of "unclassified" cases is comparatively large in our temporary care service (35 in 545 cases). Many of these cases are destined to receive later their proper diagnoses. We have, however, preferred to call many cases "unclassified" rather

than label them prematurely with diagnoses which might either lead to false hopes of recovery or to unwarranted pessimism. We are especially endeavoring to eliminate such equivocal diagnoses as "allied to dementia præcox" or "paranoic conditions," the practical effect of which is to terminate the examiner's active diagnostic interest.

By a system of daily staff meetings of one hour's duration, 12 M.-1 P.M., the various members of the staff are led to a clear definition of their various opinions. A contentious spirit has been encouraged. The dicta of the prevailing psychiatric schools are quoted in connection with the cases which are presented, both in record form and in person. Numerous medical visitors, both from Boston and from a distance, have attended these staff meetings. An endeavor is made to distinguish clearly the facts from the interpretation and to distinguish among facts, first, the separate *signs and symptoms*, and secondly, the so-called symptomatic pictures or *symptom-complexes*. After the facts as to symptoms and symptom groups have been discussed, the question as to the diagnosis, *i.e.*, as to the morbid entity present, is separately taken up. In this fashion it is hoped to avoid the strife over classification which prevails in many clinics.

Not only are the major distinctions of recent psychiatric literature kept in mind, but the psychopathic hospital is distinguished by the degree of attention levelled at bodily conditions. The value of routine Wassermann examinations of the blood serum to establish the question of previous syphilitic infection has been convincingly proved to every one associated with the clinic, and it seems unquestionable that all the insane hospitals of the State must get the benefit of routine Wassermann examinations if they are to single out the great number of mental diseases produced or modified by syphilis.

Doubtless the percentage of syphilis demonstrable in asylum material may rarely run over 10 per cent., but the acute material of the active hospitals may yield a percentage somewhere between 20 and 30 under the present conditions of society. Certain leads in therapy are thereby indicated.

More than ordinary attention is given to routine examination of the blood and of the urine, and especial attention is given to the examination, by a variety of methods, of the cerebrospinal

fluid in cases where blood serum has proved by the Wassermann method a pre-existent syphilis.

A number of important problems have arisen in connection with the bodily conditions thus studied. There is some question whether this kind of work will ever be possible in the conditions of the ordinary acute hospital in which a psychopathic department for intensive work has not been established. Experience already indicates that one of the best arguments for an extension of the psychopathic hospital system to other hospitals of the State and to other States will be the work rendered possible in psychopathic wards upon bodily conditions. Emphasis upon this somatic division of our work will have the added advantage of drawing into the circle of psychiatry many more men than formerly, who are interested in the medical problems of the thorax and the abdomen. For these men psychiatry has heretofore been a neglected field. The psychopathic hospital is particularly benefited by having internes especially interested in careers outside of psychiatry (neurology, ophthalmology, gynæcology, X-ray); and the hospital can doubtless continue to attract skilled internes and other officers who will work in the hospital for limited periods upon the relations of their particular specialties to psychiatry.

Attention may be called to the fact that there have been a considerable number of patients that were proved to be "not insane" (30 in the statistical year 1912). Great benefit accrues to the hospital atmosphere from the presence of these normal cases, for no patient can be sure in the presence of another patient whether that other patient is sane or insane. The existence on the wards of cases who, although of the high-grade imbecile or "moron" type, are to all intents and purposes sane from the standpoint of the medical atmosphere, adds to the impression which should gain ground, that the psychopathic hospital is not merely an institution for persons already declared insane. By admitting cases of hysteria, of epilepsy and border-line cases we shall secure something of the effect of the well-known German psychiatric clinics which are often known as "mental and nervous clinics," and indeed possess a number of beds expressly for nervous patients. So good is the social attitude in the German-speaking countries toward this association of nervous and mental patients

that no objection is raised thereto. Our psychopathic hospital is going a step farther still in its endeavor to create the atmosphere of the general hospital for all the patients.

Note may be made concerning the value of the X-ray department in the early detection of patients' injuries and in certain problems of diagnosis. Much attention is to be given to the question of the diagnosis of skull conditions which often have a considerable bearing upon diagnosis (pituitary gland disorder, frontal osteosis, etc.).

A number of investigations are already under way, especially into mental changes produced or modified by syphilis and alcohol, into certain problems in psychoanalysis and dream analysis and into the value of the various modern tests for mental defect. Studies are in progress in eugenics with the co-operation of the eugenics record office, Cold Spring Harbor, N. Y. The cases selected for study bear particularly on the question of the interplay of hereditary and individual bodily conditions. The object is to determine whether there are certain hereditary factors which are not called into play except under particular environmental conditions.

The out-patient department has been especially successful, although not yet formally opened. Social agencies of various descriptions, particularly those dealing with children and adolescents, have hastened to send their problems to the psychopathic hospital. The example set by the psychopathic hospital in placing an expert in children's diseases at the head of its out-patient department will doubtless be followed by other similar institutions. The problem of the records of the out-patient department early caused difficulty, inasmuch as the results of the Binet-Simon tests and of the Healy and allied tests for mental and motor capacity required extensive typewriting. The placing of the responsibility for after-care work upon the out-patient department has also entailed a deal of work. The response of the discharged patients to the requests made to them that they should report on given dates to the hospital has been encouraging, and even surprising, to the staff. The executive work entailed by the numerous conferences and meetings between patients and physicians who have been especially *en rapport* with them has been large. The practical laboratory work required thereby in

connection with juvenile court cases, where venereal disease may or may not have been suspected by the probation officers, has proved large. There can be no doubt that the work of the out-patient department upon the diagnosis of the various grades, — especially of the higher grades of imbecility, — upon juvenile court problems, upon sex problems connected with adolescence, upon incipient cases of insanity and cases of fear of insanity, upon speech disorder and, most important of all, upon after-care and prophylactic work in connection with house cases amply justifies its existence. It was intended that the work should begin and develop gradually, but the amount of obviously good work which could be done without at all venturing into dubious fields of social research has entailed rapid development. Paid officers must be relied on for the elaborate, time-consuming work which is at the basis of success in such departments, and already there are signs that other non-paid and voluntary officers will be of avail to help in extending the clinic. It is hoped in particular that medical students having an interest in the problems of social service will find it to their advantage to study human nature, under proper supervision, in the community by following up cases of recovered alcoholic mental disease and cases of mild mental or psychoneurotic conditions. It is possible that we shall be able to extend the practical responsible work of medical students from the obstetrical field, which is at present the only field in which the student gets a genuine and important sort of contact with patients before his graduation, to the field of social service in general.

The experience of similar out-patient departments and ambulatoria in connection with psychiatric clinics in the German-speaking countries shows that the resort to our out-patient department must in the near future mount into many hundreds during a year. It is naturally hard to calculate just how much curative work can be safely asserted for such a department, and how many cases of mental disease are saved from admission to the hospital. The efficiency "follow-up" methods of modern social service can, however, soon be applied to the out-patient cases, both original out-patient cases and after-care cases formerly in the wards. Certainly an atmosphere of optimism now prevails with our officers in respect to this work.

Statistics for the Out-patient Department, Psychopathic Hospital.

NUMBER OF NEW CASES.	ADULTS.		MINORS.		Total.
	Male.	Female.	Male.	Female.	
July,	1	2	—	1	4
August,	—	1	7	6	14
September,	7	9	13	13	42
October,	16	9	7	7	39
Total cases to November 1, ¹ . . .	—	—	—	—	99

¹ November total, 60.*Classification according to Service.*

	ADULTS.		MINORS.		Total.
	Male.	Female.	Male.	Female.	
Referred from social agencies,	4	7	9	19	39
Referred from hospitals,	3	3	8	2	16
Referred from physicians,	1	4	9	6	20
Other cases,	10	4	2	—	16
Psychopathic hospital after-care cases, . .	5	3	—	—	8
Total,	—	—	—	—	99

Classification according to Clinics.

Defective,	35
Voice,	9
Exceptional children,	9
Adolescent psychoses,	4
Juvenile delinquents,	6
Psychopathic hospital after-care cases,	8
Incipient mental disease,	27
Inebriates,	5
Normal,	12
Deferred,	7
Refused treatment,	1
Total,	123

Cases seen in three subdepartments,	4
Cases seen in two subdepartments,	16
Excluding cases counted more than once (total),	99

The application of efficiency methods to the ward work and housekeeping of one of the most finely subdivided and complex buildings ever constructed for kindred purposes has taxed the energies of all our officers. In fact, it turned out that the executive assistant became in effect a sort of major-domo or lay manager, and it is doubtful whether the work of managing the internal affairs of the psychopathic hospital will again prove attractive to a physician.

Under the conditions prevailing at the psychopathic hospital, a careful statistical study has shown a distribution of time spent by nurses and attendants as follows: —

<i>Average Time spent by 25 Nurses and Attendants in a Week.</i>										Hours.
Nursing duties,	.	.	.	.	.	.	.	.	.	24
Domestic duties,	.	.	.	.	.	.	.	.	.	23
Executive duties,	.	.	.	.	.	.	.	.	.	12

Thus for every hour spent in nursing another hour is spent in domestic work and a half hour in executive work. It is proposed by the employment of ward maids to raise the amount of nursing service per patient.

The institution is run upon the non-restraint principle. The number and accessibility of the prolonged baths (12 standing in readiness for regular use and 6 others which can be used in emergency in parts of the hospital where excited patients are not as a rule placed) have certainly robbed excited states of much of their terror. The point of importance is so to manage the nursing service that the prolonged baths can readily be employed, if need be, during the night.

Two special workers have been engaged in psychopathological work, — Dr. Emerson more particularly upon Freudian lines and Mr. Horton upon less specialized lines. It has been thought wise to try these methods of work with suitable patients, and some apparent recoveries have followed the careful analytical work and individualized suggestion employed by the workers. A contentious spirit has been deliberately maintained as to these matters, but every practical facility possible has been granted to the work. Thirty-three cases have been more or less thoroughly investigated by the methods elected by these special workers, and from

time to time the results and progress are reported to the rest of the staff for discussion.

A good set of photographic apparatus has been installed, which will enable portraits, facial expressions and attitudes of patients, specimens, photomicrographs, enlargements, X-ray photographs, etc., to be collected for record or investigation.

The library has been developed by the purchase of current English, German, French and certain Italian text-books in psychiatry and nervous diseases, and of various works which the concrete cases occurring in the clinic have rendered desirable. Considerable effort has been made to secure the statistical reports of the different boards of Massachusetts which bear upon the work of the psychopathic hospital. Most of these reports have been secured beginning with the year 1901 and various publications of the United States have also been procured so far as they bear upon our problems. The different works are all matters of constant reference in the staff meetings above mentioned. The ideal should be held of obtaining a thoroughly good psychiatric library within the next few years.

The work of investigation which was one of the primary objects in the establishment of the psychopathic hospital is hardly under way as yet by reason of the difficulties of organization, of installation of apparatus received, and of delays in receipt of apparatus. However, some progress has been made in the following kinds of work: —

(a) Correlation of Wassermann tests with clinical and somatic conditions (W. P. Lucas).

(b) Routine study of the blood picture in various types of mental disease (O. W. Grisier).

(c) Acidosis in mental disease (D. Gregg).

(d) Treatment of symptomatic psychoses (E. E. Southard).

(e) Lowering and raising of the faradic threshold by Prof. E. G. Martin's method (Mr. Grabfield, voluntary worker).

(f) Study of pellagroid conditions with ultra violet rays in rabbits (H. M. Adler).

(g) Study of neurolysis by fatty acids (H. M. Adler).

(h) Statistical study of delusions bearing on the Wernicke classification (A. W. Stearns).

(i) Meaning and range of the Binet-Simon tests and the Healy tests for mental and motor capacity (V. V. Anderson).

(j) Structure versus function in psychopathology based on analysis of available anatomical material, Danvers and Worcester collections (E. E. Southard).

(k) Differentiation of alcoholic mental diseases in the light of the provision of the law excluding cases of delirium tremens (A. W. Stearns).

(l) Studies in eugenics bearing on the problem of interplay of hereditary and somatic factors (W. P. Lucas and Anna E. Steffens).

In addition to these more set and limited investigations, the range of application of the social service work in connection with after care and prophylaxis, eugenics and the intramural "companionship" problems, is being subject to careful examination from the out-patients' department as a center.

Ten addresses and talks before various societies and associations have been given by the director and the chief of staff upon the psychopathic hospital and the social and scientific investigations made in connection therewith.

Numerous problems of organization have arisen in connection with the psychopathic hospital, and I desire to thank the medical and non-medical officers under my authority for their cordial co-operation in the work. I desire to thank the superintendent for help in numerous questions of detail along the plane of contact between his authority and my own. In conclusion I wish to thank the Board of Trustees for their assistance and interest in the development of the numerous new lines of social policy involved in this undertaking.

Respectfully,

E. E. SOUTHARD,

Director.

Nov. 30, 1912.

REPORT OF THE PATHOLOGIST.

To the Superintendent of the Boston State Hospital.

The report herewith presented covers the period from Sept. 30, 1911, to Sept. 30, 1912.

In an absence of six months, granted by the superintendent and trustees of this hospital, observations were made in hospitals and laboratories in England and the Continent, including a ten weeks' residence in Giessen in Hessen. Here the university clinics or hospitals are clustered in one portion of the town, and the work is centralized, each doing its special work for the other, insuring the most extensive equipment and trained workers at a minimum expense, *i.e.*, the anatomical clinic does all the post mortems for every other one, the surgical clinic all the surgery, etc. It was in the psychiatric clinic, under the direction of Prof. Robert Sommer and the pathologist, Dr. Kurt Berliner, that the writer worked, getting an insight into the medico-legal aspect of psychiatric and neurological diagnosis, — the "clearing-house methods" applied to the feeble-minded, epileptic, imbeciles and border-line cases, — and extended methods of pathological histology. It was very illuminating to see the importance attached to the microscopical findings in the tissues and the finality with which such facts were accepted.

In the visit to the clinic in Munich, under Professor Kraepelin's direction, and in Dr. Alzheimer's laboratory, it was again impressive to see what elaborate methods were carried out to locate and describe changes in the central nervous system in psychiatric diseases, and in the teaching clinic how much in detail each case was considered.

With Professor Edinger of Frankfort-am-Main the research in anatomical lines was primary, and brilliant pieces of work were in process of investigation under his direction. The rooms and cabinets for demonstrating his collection of material, apparatus

for drawing and studying by his special projection methods were good to see, and it is hoped that our laboratory may acquire a museum of anatomical as well as pathological specimens.

In Vienna the importance of eye-ground examinations in cerebral lesions was again demonstrated, and has led to the request to extend the work of the pathologist to the investigation of our hospital cases by means of the ophthalmoscope, correlation of the changes, visible or not, in the optic nerve being the point to gain.

In Berlin, Professor Vogt's collection of serial sections of brains, and in Amsterdam and in Leiden the display at the Anatomical Cabinets, created a desire to see our interesting specimens likewise treated, and, since we have a number of brains in preparation, we feel the need of suitable shelving on which to store them.

The Tropical Medicine Hospital and laboratory in Hamburg was acute in its clinical interest, since triads of diseases were existing in the same individual at the same time. They were having excellent results in treating some forms of malaria with their modification of "salvarsan," finding the results were even better when syphilis was present in combination. The wards were full of cases, but the mortality was not high, so not much work was being done on the lesions of the central nervous system in tropical diseases, but Dr. Mott of Claybury, pathologist to the London county asylums, is especially keen on that, since some varieties simulate the lesions of syphilis, on the changes from which he is a recognized authority. In Dr. Mott's laboratory microscopical work was again emphasized, though chemistry of brain and of ductless glands, and statistical evidence, eugenics, etc., were occupying his attention.

More interest has been awakened in clinical work since this trip in regard to correlating symptoms and lesions, or symptoms and no gross lesions, as is frequently seen. More work is to be undertaken on the latter type of cases with our planned-for addition in apparatus.

In the six months the writer was away, the laboratory work went forward with no break under the able management of Dr. Mary E. Morse, and for the period closed by this report more than 900 specimens have been examined, exclusive of repeated bacteriological investigation of food supplies, and no epidemic has arisen. The laboratory stands ready to assist in diagnosis

of cases not otherwise clear, and the writer feels it has demonstrated its value in so doing.

Forty autopsies, or 29.12 per cent. of the deaths, have been done, making 90 in the two years of the writer's service, — protocols made and sections cut from each case. Obviously all this could not have been done without technical aid, and we have been fortunate in retaining the services of Miss Ellen R. Scott.

Abstracts of important cases that have come to autopsy, and which will be written in more detail, follow: —

- No. P. 711. Male. Age, seventy-two years. Janitor. Sudden onset of paranoid ideas and a generalized convulsion followed by choreiform movements involving right arm and, slightly, leg; disturbance of speech. Arteriosclerotic brain disease. Post mortem; slight basal sclerosis, probably embolus.
- No. 10130. Male. Age, sixty-six years. Laborer. Senile dementia. Delusions of marital infidelity. Hallucinations of hearing; confusion; wandering; slurring of speech; irritable; sways in Romberg; irregular pupils; some arteriosclerosis. Came to hospital June, 1911; died January, 1912. Focal destructive lesion frontal lobe.
- No. 10435. Male. Age, fifty-nine years. Cabinet maker. Whole period of disease one and one-half months. Physical signs of general paralysis. Died, 1912. *Trichinæ spiralis*.
- No. 10008. Male. Age, forty-seven years. Insurance agent. Moderate drinker. Several attacks of epistaxis. Epigastric pulsations, enlarged liver, localized venous hum over body of xiphoid. In hospital eight months. Died, 1911. Cirrhosis of liver and anomalous vascular anastomosis.
- No. 9445. Male. Age, forty-three years. Clerk. Married. Paralysis of left arm and foot, following vaccination in 1900. Committed to hospital, 1909. Delusions of importance and wealth. Threatened to kill wife. Died, 1911. Syringomyelia with psychosis.
- No. 10184. Male. Age, sixty-seven years. Grocer. December, 1909, had shock. Confused; hallucinated; unable to stand. Came to hospital, 1911; died one month later. Multiple cysts of softening in cerebrum and cerebellum.
- No. 7872. Male. Age, fifty-seven years. Imbecile. In hospital five years. Sudden hemorrhage from gastrointestinal tract, due to ruptured syphilitic ulcer of œsophagus.

- No. 9358. Male. Age, fifty-seven years. Fireman. Hard drinker. Shock, 1908, from which he became aphasic and hemiplegic, deluded and hallucinated. Sent to hospital, 1909; died, 1911. Destructive lesion of motor region and basal ganglion left side.
- No. 10655. Male. Age, fifty-six years. Machinist. Was in army ten years. Hard drinker. In March, 1912, an attack of aphasia with some slight paralysis. Recovered partially, but marked change in manner. Wassermann reaction negative in spinal fluid. Increased proteid content. Unequal grips; balancing power poor; tremors of hands and tongue; dragging right foot, slight aphasia. Post-mortem examination; cavity in cord, massive lateral ventricular hemorrhage.
- No. 9926. Male. Age, thirty-three years. Diagnosis, general paralysis or cerebral syphilis. Onset of monoplegia after a fall in 1908, four years; onset of mental disease, 1910; death, 1912, of decubitus septicæmia and purulent cerebro-spinal meningitis (*B. pyogenes*). Extensive degeneration of posterior column and crossed pyramidal trace.
- No. P. 220. Female. Age, sixty-six years. Housework. Duration, three days. Jaundiced, confused, restless, delirious; no paralysis. Toxic psychosis (unusual liver lesion).
- No. 10082. Female. Age, fifty-three years. Duration of mental disease with convulsive onset, speech impairment, spastic contraction of muscles of face, sixteen days. Toxic psychosis (diabetic).
- No. 9824. Female. Age, fifty-seven years. Mental disease consisted of strange actions and loss of memory of gradual onset covering a period of a year. Cerebral tumor.
- No. 8381. Female. Age, fifty-eight years. Negress. Jacksonian epilepsy. Intemperate. For five years had epileptic convulsions. Scars on body. Mouth drawn to right. Contractures, emaciation, carcinoma of breast. In hospital four years; died, 1911. Dural tumor, endarteritis cerebral vessels, syphilitic liver, tuberculosis of lungs.
- No. 10746. Female. Age, thirty-four years. Peculiar for years. Memory not clear; spasticity, right arm and leg, with atrophy; no disturbances of special senses; choreiform movements. Death after two and one-half months' hospital residence. Brain tumor.

Photography of the brain in 15 cases has been done, to be used in the series of "Photographs of Brains of the Insane," and tracings of the principal sulci of the posterior half of the brain made.

A series of experiments, both by "exact" and practical methods, was done to determine the value of antiseptics, the results of which have been of value to the hospital in selecting the ones to be used.

Teaching. — As in the case of other members of the staff, a certain number of lectures on the subjects best known are given to the nurses each year; demonstrations of anatomy and pathology occur with almost every autopsy; bacteriology in the laboratory, — somewhat time-consuming, but interesting and profitable both to the students and the writer. A course given in urinary analysis prepares them to do simple tests for the routine urinary examinations, if desired that this work be intrusted to them.

Some much needed improvements and extensions of the laboratory have been provided: a new concrete walk to the entrance, a sign indicating location of the laboratory, an electric bell for visitors, a dark corner lighted; 1913 will show a larger autopsy table with central drainage, the completion of a storeroom with shelves for jars and slides, a cabinet for the gross brain specimens and a freezing microtome. If the work increases, keeping pace with the growth of the hospital, assistants, voluntary or paid, will be desirable.

In conclusion I wish to thank the officers, who have been uniformly cordial and courteous, and you, who have at all times generously supported the laboratory.

Respectfully,

MYRTELLE M. CANAVAN,

Pathologist.

SEPT. 30, 1912.

SUPERINTENDENT OF NURSES' REPORT.

To the Superintendent of the Boston State Hospital.

I herewith submit the thirteenth annual report of the Training School for Nurses.

Graduating Class of 1912.

Isabelle H. Crooks.	Mary A. Jessamine.
Frances G. Dodd.	Alice A. Kershaw.
Mary L. Dodd.	Anna M. Miller.
Mary B. Dowling.	Isabelle G. Monahan.
Matilda J. Ewart.	Anna E. Peloquin.
Ruby E. Griggs.	Hannah L. Shannon.
Arthur S. Hall.	Adah M. Teele.
Bertha M. Hall.	Mildred E. Terrill.
Elizabeth D. Husted.	Lavinia Wood.

Nursing Staff (in Women's Wards only).

Superintendent of nurses,	1
Assistant superintendent of nurses (graduate),	1
Supervisors, day (graduates),	4
Supervisors, night (graduates),	3
Head and senior nurses (graduates),	25
Head nurses (pupils),	5
Night nurses (pupils),	13
Night attendants,	7
Day nurses (pupils),	29
Day attendants,	17
Probationers,	13
Total,	118

The above includes the nursing staff at the psychopathic department.

Applications during the year,	324
Applications accepted during the year,	107
Probationers,	87
Attendants,	10
Former graduates of this school,	4
Graduates of other schools,	6
Left during the year: —	
Graduates,	15
Pupils (3 discharged),	8
Probationers (4 rejected, 1 discharged, and 1 became telephone operator),	30
Attendants (1 became telephone operator),	18

The school opened this year with an attendance of 80 pupils, as follows: —

Seniors (including 2 men),	14
Juniors (including 16 men),	50
Probationers,	16

The above figures include pupils at the psychopathic department.

There were 18 nurses graduated with appropriate exercises in June of this year, the largest class ever receiving diplomas, and the first in the history of the training school to include a man, making a total of 98 since 1899.

The number of pupils enrolled at the opening of the school is also the largest since it was established, being 80 as against 5 in 1904, — the first class under the writer's jurisdiction.

The course of instruction has been extended from two to two and one-half years, as arrangements have been made with the Boston City Hospital for our pupils to spend six months of their course there for instruction and practical experience in nursing medical, surgical and gynæcological cases and contagious diseases.

Fifteen of our graduates have resigned during the year, 10 to enter general hospitals for postgraduate courses. Three of our former graduates returned, 1 for a short time as night supervisor, and 2 in charge of work in the psychopathic department, these latter being still with us.

At the opening of the psychopathic hospital in June, 1912, Miss Jessie M. Buist, who has rendered valuable aid as assistant

superintendent of nurses for seven years, was selected to take charge of the nurses in that department. She was well qualified for active executive work and took with her all good wishes for her success. During the summer and up to the present time there has been no successor, but Miss Jean Taylor has been selected for the position, her duties to begin Dec. 1, 1912.

The course of instruction is the same as reported in detail last year, consisting of lectures, recitations and demonstrations covering all that is required to be taught the nurses, both in theory and practice. Owing to the larger size of the classes, it has become necessary to divide them into sections, with consequent double tax upon the time and energy of the instructors.

Respectfully,

JANE ROBERTSON,

Superintendent of Nurses.

Nov. 30, 1912.

VALUATION.

Nov. 30, 1912.

REAL ESTATE.

Buildings and 152 acres of land taken from the city of

Boston, Dec. 1, 1908, \$1,000,000 00

79 acres land taken Nov. 3, 1909, 75,910 00

Amount paid on new buildings and additions:—

Infirmmary, 253,497 13

Laundry, 43,997 90

Butler, 38,721 07

Psychopathic department (land and building), 545,249 96

Repairing south dormitory, 3,903 00

Building for 100 female patients, 11,359 47

House for 42 male nurses, 9,546 29

Supplies and cold storage, 5,653 84

Light and power, 1,859 41

\$1,989,698 07

PERSONAL PROPERTY.

Provisions and groceries, \$2,979 45

Clothing and clothing material, 8,846 56

Furnishings, 92,903 51

Heat, light and power, 424 01

Repairs and improvements, 2,577 49

Farm, stable and grounds, 21,122 72

Miscellaneous, 12,982 29

\$141,836 03

SUMMARY.

Real estate, \$1,989,698 07

Personal property, 141,836 03

\$2,131,534 10

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1912:—

CASH ACCOUNT.

Balance Dec. 1, 1911,	\$5,561 90
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Receipts.

Institution Receipts.

Board of inmates:—

Private,	\$19,157 43
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Reimbursements, insane,	9,346 98
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\$28,504 41

Salaries, wages and labor:—

Labor of employees,	7 00
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Sales: —

Food,	\$36 02
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Clothing and materials,	56 07
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Furnishings,	.	.	.	20	25
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Repairs and improvements,	19 72
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Miscellaneous,	13 90
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Farm, stable and grounds:—

Cows and calves,	59 00
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Pigs and hogs,	274	86
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Hides,	12	10
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Sundries,	27	33
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519 25

Miscellaneous receipts: —

Interest on bank balances,	\$249 42
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Sundries,	19 60
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269 02.

29,299 68

Receipts from Treasury of Commonwealth.

Maintenance appropriations: —

Balance of 1911,	\$5,590 02
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Advance money (amount on hand Nov. 30, 1912),	23,000 00
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Approved schedules of 1912,	\$279,652 29
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Less returned,	78 00
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279,574 29

308,164 31

Special appropriations.

\$301,127 59

Less returned,	2 00
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301,125 59

Industries fund, approved schedules,

88 08

Total,	\$644,239 56
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Payments.

To treasury of Commonwealth, institution receipts,		\$29,299 68
Maintenance appropriations: —		
Balance November schedule, 1911,	\$11,151 92	
Eleven months' schedules, 1912,	279,574 29	
November advances,	13,961 80	
	<hr/>	304,688 01
Special appropriations: —		
Approved schedules,		301,125 59
Industries fund, approved schedules,		88 08
Balance Nov. 30, 1912: —		
In bank,	\$8,326 39	
In office,	711 81	
	<hr/>	9,038 20
Total,		<hr/> \$644,239 56

MAINTENANCE.

Appropriation,	\$306,000 00
Expenses (as analyzed below),	305,932 52
	<hr/>
Balance reverting to treasury of Commonwealth,	\$67 48

Analysis of Expenses.

Salaries, wages and labor: —	
General administration,	\$43,374 53
Medical service,	20,477 63
Ward service (male),	23,009 56
Ward service (female),	33,396 76
Repairs and improvements,	8,108 72
Farm, stable and grounds,	10,050 65
	<hr/>
	\$138,417 85
Food: —	
Butter,	\$11,469 08
Butterine,	691 67
Beans,	1,041 42
Bread and crackers,	208 66
Cereals, rice, meal, etc.,	1,498 29
Cheese,	1,147 58
Eggs,	5,094 13
Flour,	7,375 85
Fish,	2,752 19
Fruit (dried and fresh),	2,580 24
Meats,	21,197 28
Milk,	1,326 10
Molasses and syrup,	279 78
Sugar,	4,530 57
Tea, coffee, broma and cocoa,	3,117 74
Vegetables,	3,508 79
Sundries,	3,208 24
	<hr/>
	71,027 61
Amount carried forward,	<hr/> \$209,445 46

<i>Amount brought forward,</i>		\$209,445 46	
Clothing and materials: —			
Boots, shoes and rubbers,		\$1,762 31	
Clothing,		3,878 25	
Dry goods for clothing and small wares,		2,883 90	
Furnishing goods,		75 27	
Hats and caps,		107 32	
Leather and shoe findings,		216 77	
Sundries,		22 37	
			8,946 19
Furnishings: —			
Beds, bedding, table linen, etc.,		\$7,060 85	
Brushes, brooms,		272 45	
Carpets, rugs, etc.,		258 40	
Crockery, glassware, cutlery, etc.,		1,374 87	
Furniture and upholstery,		815 56	
Kitchen furnishings,		789 05	
Wooden ware, buckets, pails, etc.,		91 72	
Sundries,		2,178 85	
			12,841 75
Heat, light and power: —			
Coal,		\$21,384 39	
Gas,		102 24	
Oil,		213 60	
Sundries,		556 80	
			22,257 03
Repairs and improvements: —			
Brick,		\$10 85	
Cement, lime and plaster,		295 58	
Doors, sashes, etc.,		15 97	
Electrical work and supplies,		1,350 41	
Hardware,		939 03	
Lumber,		1,347 27	
Machinery, etc.,		3,653 76	
Paints, oil, glass, etc.,		2,346 07	
Plumbing, steam fitting and supplies,		3,497 92	
Roofing and materials,		162 00	
Sundries,		1,145 33	
			14,764 19
Farm, stable and grounds: —			
Blacksmith and supplies,		\$655 50	
Carriages, wagons, etc., and repairs,		5,554 65	
Fertilizers, vines, seeds, etc.,		963 08	
Hay, grain, etc.,		4,895 68	
Harnesses and repairs,		291 76	
Horses,		900 00	
Cows,		505 00	
Other live stock,		251 00	
Rent,		3 50	
Tools, farm machines, etc.,		572 39	
Sundries,		2,874 54	
			17,467 10
<i>Amount carried forward,</i>			\$285,721 72

Amount brought forward, \$285,721 72

Miscellaneous: —

Religious services,	\$1,112 00	
Books, periodicals, etc.,	922 10	
Entertainments,	526 65	
Freight, expressage and transportation,	269 15	
Funeral expenses,	44 60	
Gratuities,	177 10	
Hose, etc.,	154 99	
Medicines and hospital supplies,	4,096 02	
Medical attendance, nurses, etc. (extra),	906 33	
Manual training supplies,	924 68	
Postage,	752 78	
Printing and printing supplies,	1,025 11	
Printing annual report,	200 88	
Return of runaways,	36 50	
Soap and laundry supplies,	932 29	
Stationery and office supplies,	1,004 41	
School books and school supplies,	8 15	
Travel and expenses (officials),	599 28	
Telephone and telegraph,	1,253 64	
Tobacco,	202 53	
Water,	4,112 60	
Sundries,	949 01	
	<hr/>	20,210 80
Total expenses for maintenance,		\$305,932 52

SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1911,	\$552,524 29	
Appropriations for fiscal year,	191,000 00	
	<hr/>	
Total,		\$743,524 29
Expended during the year (see statement annexed),	\$535,210 16	
Reverting to treasury of Commonwealth,	2 10	
	<hr/>	535,212 26
Balance Nov. 30, 1912,		\$208,312 03

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$9,038 20	
November cash vouchers (paid from advance money),	13,061 80	
Due from treasury of Commonwealth account		
November, 1912, schedule,	3,358 23	
	<hr/>	\$26,358 23

Liabilities.

Schedule of November bills,	\$26,358 23
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PER CAPITA.

During the year the average number of inmates has been 1,080.81.
Total cost for maintenance, \$305,932.52.
Equal to a weekly per capita cost of \$5.4285.
Receipts from sales, \$519.25.
Equal to a weekly per capita of \$0.0092.
All other institution receipts, \$28,780.43.
Equal to a weekly per capita of \$0.5106.
Weekly per capita cost at main hospital, \$4.8962.

INDUSTRIES FUND.

Appropriation,	\$300 00
Receipts credited,	-
	<hr/>
	\$300 00
Expenditures,	88 08
	<hr/>
Balance Nov. 30, 1912,	\$211 92

Special Appropriations.

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Expended to Date.	Balance at End of Year.
For the purpose of establishing in the city of Boston a hospital for the first care and observation of acute and curable mental diseases,	Acts 1909, chap. 470	\$600,000 00	\$177,429 22	\$563,989 68	\$36,010 32
Butler building addition,	Acts 1910, chap. 644	39,000 00	2,432 72	38,721 07	278 93
Infirmary,	Acts 1910, chap. 644	275,000 00	87,409 27	272,107 43	2,892 57
Laundry,	Acts 1910, chap. 644	44,000 00	1,444 29	43,997 90	12 10
Land (paid direct from State Board of Insanity),	Res. 1911, chap. 65	250,000 00	234,172 65	239,547 78	10,452 22
Building for 100 female patients,	Res. 1912, chap. 118	105,000 00	11,359 47	11,359 47	93,640 53
House for 42 male nurses,	Res. 1912, chap. 118	22,000 00	9,546 29	9,546 29	12,453 71
Light and power,	Res. 1912, chap. 118	16,000 00	1,859 41	1,859 41	14,140 59
Supplies and cold storage,	Res. 1912, chap. 118	42,000 00	5,653 84	5,653 84	36,346 16
Repairing south dormitory,	Res. 1912, chap. 118	6,000 00	3,903 00	3,903 00	2,097 00
		\$1,399,000 00	\$535,210 16	\$1,190,685 87	\$208,312 03

¹ Reverting to treasury of Commonwealth.

Respectfully submitted,

FRED L. BROWN,

Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

WARREN A. MERRILL,

Assistant Supervisor of Accounts.

PRODUCTS OF THE FARM AND GARDEN.

GARDEN PRODUCTS.

Asparagus, 9½ boxes,	\$38 00
Beans, shell, 31 bushels,	43 40
Beans, string, 129½ bushels,	116 55
Beets, 258½ bushels,	180 95
Beets, 162 bunches,	8 10
Beet greens, 158 bushels,	63 20
Cabbage, 14 tons,	350 00
Carrots, 232 bushels,	174 00
Celery, 236 boxes,	212 40
Corn, green, 744 bushels,	558 00
Corn, whole, 175 bushels,	148 75
Cucumbers, 14½ bushels,	10 87
Dandelions, 42 bushels,	25 20
Egg plant, 1¼ barrels,	2 50
Kale, 235 bushels,	58 75
Lettuce, 347 bushels,	156 15
Onions, 343 bushels,	222 95
Parsley, 2 bushels,	80
Peas, 47 bushels,	70 50
Pepper grass, 70 bunches,	2 10
Peppers, 2½ bushels,	1 50
Potatoes, 1,619 bushels,	1,133 30
Pumpkins, 800 pounds,	16 00
Radishes, 239 dozen,	71 70
Rhubarb, 9,827 pounds,	196 50
Spinach, 130 bushels,	45 50
Squash, winter, 22 tons,	550 00
Squash, summer, 10½ barrels,	8 90
Tomatoes, ripe, 266 bushels,	266 00
Tomatoes, green, 51½ bushels,	38 62
Turnips, white, 360 barrels,	360 00
Turnips, ruta бага, 188 barrels,	188 00
Apples, 88 barrels,	220 00
Currants, 236 boxes,	23 60
Pears, 7 bushels,	7 00
Plums, 10 baskets,	2 50

Swiss chard, 41 bushels,	\$16 40
Raspberries, 37 boxes,	6 00
Strawberries, 1,181 boxes,	118 10
Blackberries, 412 boxes,	61 80
Grapes, 240 pounds,	9 60
<hr/>	
Total,	\$5,784 19

FARM PRODUCTS.

Ensilage, 300 tons,	\$1,200 00
Fodder, green, cabbage, 16 tons,	64 00
Fodder, green, corn, 8 tons,	32 00
Fodder, green, clover, and alfalfa, 34 tons,	136 00
Fodder, green, millet, 50 tons,	200 00
Fodder, green, oats, barley, and peas, 45 tons,	180 00
Hay, English, 170 tons,	3,740 00
Hay, meadow, 22 tons,	220 00
Rye, straw, 15 tons,	300 00
Beef, 1,532 pounds,	122 56
Milk, 195,548 quarts,	15,643 84
Pork, 19,713½ pounds,	2,365 62
Ice, 900 tons,	2,700 00
Cows and calves,	59 00
Pork trimmings, etc.,	274 86
Hides,	12 10
Sundries,	27 53
<hr/>	
Total,	\$27,277 51
Garden products,	\$5,784 19
Farm products,	27,277 51
<hr/>	
Total,	\$33,061 70

REPORT OF WORK DONE IN THE MEN'S INDUSTRIAL ROOMS

FOR THE YEAR ENDING NOV. 30, 1912.

Articles manufactured.

Awnings made and fitted, . . .	18
Bath hammocks, . . .	26
Bookbinding, volumes, . . .	18
Brooms, parlor, corn, . . .	662
Brooms, stable, reed filled, . . .	63
Brooms, whisk, . . .	11
Brushes, bath, . . .	49
Brushes, dust, . . .	28
Brushes, floor scrub, . . .	99
Brushes, horse, . . .	16
Brushes, long-handled floor, bristle, . . .	52
Brushes, long-handled scrub, . . .	81
Brushes, nail, . . .	72
Brushes, shoe, . . .	49
Brushes, stove, . . .	19
Brushes, waxing, . . .	96
Carpenter's bench, . . .	1
Carriage seat, box spring, . . .	1
Coir braid, hand-braided (yards), . . .	110
Combination tool cabinet, . . .	1
Cushion back, . . .	1
Cushions, leatherette, . . .	3
Desk, flat-top, . . .	1
Farm baskets, half bushel, . . .	14
Furniture slip covers, . . .	3
Laundry bags, netted, . . .	2
Laundry baskets, 6-bushel, . . .	9
Laundry baskets, 5-bushel, . . .	3
Laundry baskets, 4-bushel, . . .	13
Massage table tops upholstered, . . .	4
Mattresses, double, . . .	2
Mattresses, indestructible, . . .	4
Mattresses, single, . . .	490
Mats, coir braid, . . .	10
Mats, coir yarn, . . .	17
Operating cart pad, . . .	1
Operating table pads, . . .	4
Pillows, feather, . . .	222
Pillows, hair, . . .	552
Rugs, hooked, . . .	7
Rugs, woven, . . .	21
Shades made and fitted, . . .	110
Shoe daubers, . . .	24
Sofa pillows, . . .	33
Tables, . . .	5
Waste-paper baskets, . . .	24

Articles renovated.

Automobile boot, . . .	1
Awnings, . . .	3
Barber chairs, . . .	4
Base rocker, . . .	1
Basket table, . . .	1
Boots, men's (pairs), . . .	40
Box spring seat, . . .	1
Brushes, long-handled floor, refilled, . . .	29
Brushes, long-handled floor, scrub, . . .	20
Brushes, long-handled floor, scrub, refilled, . . .	10
Brushes, waxing, . . .	16
Bureaus, . . .	12
Carpet cut and fitted, . . .	1
Carpet, stair, laid, . . .	1
Carpets, . . .	18
Chairs, . . .	245
Chairs caned, various styles, . . .	102
Chairs scraped and finished, . . .	52
Chairs, spring seat and back, . . .	2
Couch upholstered, . . .	1
Cushions, . . .	9
Door stops covered, leatherette, . . .	3
Foot-rest upholstered, . . .	1
Grille partition put up for office, . . .	1
Hammocks, . . .	6
Laundry baskets, . . .	6
Lights put in automobile shield, . . .	3
Mattresses, double, . . .	3
Mattresses, single, . . .	352
Morris chair cushions, set, . . .	1
Pillows, feather, . . .	21
Pillows, hair, . . .	263
Reins, . . .	2
Shades, . . .	106
Shoes, men's (pairs), . . .	495
Slippers, men's (pairs), . . .	145
Squillgee, rubber, . . .	1
Tables, . . .	67
Tents, . . .	3
Tent flies, . . .	4
Transom pole, . . .	1
Wagon cover, . . .	1

REPORT OF WORK DONE IN WOMEN'S INDUSTRIAL AND SEWING ROOMS

FOR THE YEAR ENDING NOV. 30, 1912.

Aprons,	721	Embroidery — <i>Concluded.</i>	
Artificial flowers,	210	Doilies,	18
Bathing dress,	1	Handbag,	1
Bath robes,	33	Handkerchiefs,	6
Bed shirts,	144	Jabots,	5
Bed slippers (pairs),	36	Pillow slips,	1
Bed socks (pairs),	48	Pin cushions,	5
Bells for decoration,	3	Towels,	7
Belts,	12	Hemstitching: —	
Bibs,	223	Bureau covers,	177
Blankets, hemmed,	4	Chiffonier covers,	3
Boxes for laboratory,	75	Commode covers,	37
Bread basket covers, sets,	2	Curtains,	41
Bureau covers,	114	Table covers,	298
Burial sheets,	60	Tabourette covers,	24
Burial squares,	24	Towels,	3
Candle shade,	1	Iron holders,	36
Candy bags (dozen),	67	Jabots,	6
Carpet rags (pounds),	169	Jumpers,	75
Chemises,	86	Kimonos,	80
Cover for milk cooler,	1	Kimonos, tags sewed on,	12
Crocheted bag,	1	Lace crocheted (yards),	26½
Crocheted collars,	2	Laundry bags,	203
Crocheted insertion (yards),	12½	Laundry bag strings,	13
Crocheted shawl,	1	Lemonade stand,	1
Crocheted slippers (pairs),	10	Mattresses,	50
Crocheted wheels for doily,	25	Mattress ticks,	86
Curtains,	24	Milk strainers,	6
Doilies,	12	Muslin ties,	12
Doilies, crocheted,	7	Nightdresses,	495
Drawers (pairs),	152	Nightshirts,	332
Drawn-work table covers,	4	Operating gowns,	9
Draperies, sets,	5	Overalls,	86
Dresses,	428	Pads mended,	31
Dress waists,	8	Paper mats,	2
Embroidery: —		Petticoats,	252
Aprons,	297	Pillows,	89
Baby bibs,	2	Pillow slips,	2,153
Belts,	5	Pool table covers,	3
Collars,	3	Quilt blocks,	47
Corset bags,	3	Raffia: —	
Corset covers,	2	Bags,	3

Raffia — Concluded.

Baskets,	5
Jardinières,	14
Napkin rings,	4
Slippers (pairs),	12
<i>Reed: —</i>	
Baskets,	4
Footstools,	6
Table mats,	4
Tea tables,	2
Trays,	2
Wastebaskets,	57
Watch fob,	1
Reed wound, bundles,	6
Ribbon tea aprons,	2
Rugs, braided,	10
Rugs, fringe tied on,	5
Rugs, hooked,	7
Rugs, woven,	139
Sanitary napkins,	683
Screens,	18
Screen covers,	72
Scrim curtain,	1
Scrim woven (yards),	23½
Shades,	5
Sheets,	3,353
Shirts,	529
Skirts,	128

Solitaire boards,	5
Stockings knit (pairs),	14
Straw hats,	14
<i>Surgical supplies: —</i>	
Bandages,	212
Compresses,	186
Dressings,	12
Sponges,	318
Suspenders,	506
Tablecloths,	87
Table and stand covers,	238
Table mats,	24
Table napkins,	228
Towels,	2,469
Wastebaskets,	46
Water-color cards,	26
White coats,	30
Workbags, fancy,	4
<i>Christmas decorations: —</i>	
Electric light shades.	
Holly wreaths.	
Mottoes.	
Paper chains.	
Popcorn chains.	
Stars.	
Making nurses' caps.	
Mending.	

REPORT OF WORK DONE ON WOMEN'S WARDS

FOR THE YEAR ENDING NOV. 30, 1912.

Aprons,	1,562	Rugs rebound,	2
Bibs,	63	Sanitary napkins,	432
Blankets,	6	Screen covers,	12
Bureau covers,	72	Sheets,	4,402
Bureau covers, hemstitched,	6	Spreads,	6
Burial napkins,	24	Spreads mended,	59
Burial robes,	10	Stand covers,	246
Buttonholes,	18	Stand covers, hemstitched,	70
Carpets mended,	9	Suspenders,	24
Carpet rags (pounds),	43	Tablecloths,	49
Chemises,	96	Table covers,	224
Cushion covers,	12	Table covers, Mexican work,	3
Drawers (pairs),	12	Table napkins,	467
Iron holders,	12	Towels,	1,654
Lace (yards),	5	Bandages.	
Laundry bags,	18	Christmas decorations.	
Petticoats,	18	Dressings.	
Pillow cases,	1,850	Hose unravelled.	
Raffia curtain loops (pairs),	9	Kindergarten work.	
Rag mats,	2	Picking hair.	
Rugs, braided,	4	Tagging clothing.	
Rugs, hooked,	3	Ward mending.	
Rugs, woven,	12		

STATISTICAL TABLES.

[FORM PRESCRIBED BY STATE BOARD OF INSANITY.]

1. — General Statistics of the Year.

	INSANE.			VOLUNTARY, NOT INSANE.			TEMPORARY CARE.			INEBRIATE.			AGGREGATES.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Patients in the hospital Sept. 30, 1911, Viz.: regularly committed,	351	512	863	—	—	—	4	2	6	—	—	—	355	514	869
emergency,	348	505	853	—	—	—	—	—	—	—	—	—	348	505	853
voluntary,	3	7	10	—	—	—	—	—	—	—	—	—	3	7	10
temporary care, Viz.: by regular commitment,	406	465	871	3	1	4	210	105	315	1	1	2	619	572	1,191
voluntary,	257	305	562	—	—	—	—	—	—	—	—	—	257	305	562
temporary care, viz.: observation,	39	50	89	3	1	4	210	105	315	—	—	—	42	51	93
others,	—	—	—	—	—	—	9	10	19	—	—	—	210	105	315
by transfer,	—	—	—	—	—	—	201	95	296	—	—	—	201	95	296
from visit,	60	46	106	—	—	—	—	—	—	1	1	2	60	47	107
from escape,	7	8	15	—	—	—	—	—	—	—	—	—	7	8	15
Nominal admissions for discharge, Viz.: from visit,	2	—	2	—	—	—	—	—	—	—	—	—	2	—	2
Whole number of cases within the year, Dismissed within the year,	41	56	97	—	—	—	—	—	—	—	—	—	41	56	97
Viz.: discharged,	41	56	97	—	—	—	—	—	—	—	—	—	41	56	97
as recovered,	757	977	1,734	3	1	4	214	107	321	1	1	2	1,086	2,080	3,166
as capable of self-support, as not improved,	232	283	515	3	1	4	204	101	305	—	—	—	439	385	824
as not insane,	99	142	241	3	1	4	103	55	158	—	—	—	205	198	403
died,	40	47	87	—	—	—	41	15	56	—	—	—	81	62	143
transferred,	11	12	23	—	—	—	—	—	—	—	—	—	11	12	23
committed and returned to other hospitals, on visit Sept. 30, 1912,	27	58	85	—	—	—	18	10	28	—	—	—	45	68	113
Nominal dismissals for commitment,	19	33	52	—	—	—	25	19	44	—	—	—	44	52	96
on visit Sept. 30, 1912,	2	3	5	3	1	4	19	11	30	—	—	—	24	15	39
from escape,	73	72	145	—	—	—	5	—	5	—	—	—	78	72	150
transferred,	9	10	19	—	—	—	—	—	—	—	—	—	9	10	19
committed and returned to other hospitals, on visit Sept. 30, 1912,	9	—	9	—	—	—	96	46	142	—	—	—	96	46	142
Nominal dismissals for commitment,	42	59	101	—	—	—	—	—	—	—	—	—	42	59	101

1a. — Temporary Care Statistics for the Year.

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1911,	4	2	6
Admissions from Oct. 1, 1911, to Sept. 30, 1912,	317	228	545
Viz.: chapter 504, Acts of 1909, section 34,	3	3	6
chapter 504, Acts of 1909, section 43,	9	10	19
chapter 504, Acts of 1909, section 44,	1	1	2
chapter 307, Acts of 19 0,	215	129	344
chapter 395, Acts of 1911,	89	85	174
Whole number of cases within the year,	321	230	551
Discharges from Oct. 1, 1911, to Sept. 30, 1912,	311	224	535
Viz.: recovered,	41	15	56
improved,	18	10	28
unimproved,	22	18	40
died,	5	—	5
not insane,	19	11	30
deported,	3	1	4
committed to Boston State Hospital,	102	116	218
voluntary to Boston State Hospital,	5	7	12
committed to Danvers State Hospital,	11	6	17
committed to Worcester State Hospital,	9	6	15
committed to Westborough State Hospital,	37	12	49
committed to Taunton State Hospital,	17	15	32
committed to Monson State Hospital,	3	3	6
voluntary to McLean,	1	—	1
returned to Monson State Hospital,	—	1	1
returned to Danvers State Hospital,	7	1	8
returned to Westborough State Hospital,	3	—	3
returned to Worcester State Hospital,	1	1	2
returned to Worcester State Asylum,	2	—	2
returned to Northampton State Hospital,	1	—	1
returned to Taunton State Hospital,	—	1	1
returned to Medfield State Asylum,	2	—	2
returned to Boston State Hospital,	1	—	1
returned to McCreight Sanitarium,	1	—	1
Patients remaining Oct. 1, 1912,	10	6	16
Daily average of temporary care cases,	6.29	4.75	11.04

Provisional Diagnosis in Temporary Care Cases.

	Males.	Females.	Totals.
Alcoholic psychoses: —			
Pathological intoxication,	3	—	3
Delirium tremens,	25	5	30
Polyneuritic psychoses,	3	1	4
Acute hallucinosis,	35	19	54
Chronic delusional,	7	2	9
Chronic alcoholism,	2	1	3
Alcoholic dementia,	2	—	2
Drug and toxic psychoses: —			
Cocainism,	1	—	1
Morphinism,	1	2	3
Dementia præcox,	57	31	88
Allied to dementia præcox,	3	1	4
Traumatic psychosis,	—	1	1
Paranoic conditions,	14	29	43
Manic-depressive psychoses: —			
Excitement,	25	39	64
Depression,	14	21	35
Involution melancholia,	3	5	8
Senile psychoses,	12	16	28
General paralysis,	36	3	39
Cerebral thrombosis,	—	1	1
Cerebral syphilis,	1	—	1
Epileptic psychoses,	4	1	5
Epilepsy,	6	4	10
Imbecility,	3	4	7
Constitutional inferiority,	4	3	7
Psychasthenia,	1	—	1
Hysterical psychoses,	1	2	3
Depression undifferentiated,	2	1	3
Delirium with heart disease,	1	1	2
Delirium with nephritis,	1	—	1
Arteriosclerotic brain disease,	8	—	8
Cerebro-spinal meningitis,	1	—	1
Infective-exhaustive and autotoxic psychoses,	1	7	8
Delirium with chronic cholecystitis,	1	—	1
Diabetic coma,	1	—	1
Not insane,	18	12	30
Unclassified catatonic,	1	—	1
Unclassified,	19	16	35
Totals,	317	228	545

2. — Insane received on First and Subsequent Commitments.

NUMBER OF COMMITMENT.	CASES COMMITTED.		
	Males.	Females.	Totals.
First to this hospital,	272	318	590
Second to this hospital,	21	24	45
Third to this hospital,	2	8	10
Fourth to this hospital,	1	1	2
Fifth to this hospital,	—	2	2
Sixth to this hospital,	—	2	2
Total cases,	296	355	651
Total persons,	294	355	649
Never before in any hospital for insane,	246	294	540

3. — *Nativity and Parentage of Insane Persons first admitted to Any Hospital.*

PLACE OF NATIVITY.	MALES.			FEMALES.			TOTALS.		
	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.
Massachusetts,	112	19	23	103	28	29	215	47	52
Other New England States,	20	29	29	22	20	24	42	49	53
Other States,	20	15	13	18	9	9	38	24	22
Total native,	152	63	65	143	57	62	295	120	127
Other countries: —									
Armenia,	1	1	1	—	—	—	1	1	1
Austria,	1	1	1	—	—	—	1	1	1
Canada,	17	27	23	32	23	25	49	50	48
China,	1	1	1	—	—	—	1	1	1
Denmark,	—	1	1	1	1	1	1	2	2
England,	7	7	7	7	8	7	14	15	14
Finland,	—	—	—	2	2	2	2	2	2
France,	—	—	—	1	1	1	1	1	1
Germany,	7	15	15	3	9	9	10	24	24
Greece,	1	1	1	—	—	—	1	1	1
Ireland,	36	79	75	74	120	115	110	199	190
Italy,	3	7	7	5	6	6	8	13	13
Martinique,	1	1	1	—	—	—	1	1	1
Netherlands,	—	—	—	—	1	1	—	1	1
Newfoundland,	1	1	1	—	—	—	1	1	1
Poland,	—	—	—	1	1	1	1	1	1
Portugal,	—	—	—	—	1	1	—	1	1
Russia,	11	13	18	8	14	14	19	27	32
Scotland,	2	4	4	1	3	2	3	7	6
Sweden,	3	4	4	12	11	11	15	1	15
Syria,	1	1	1	—	—	—	1	1	1
Turkey,	1	1	2	1	1	1	2	2	3
Wales,	—	—	—	1	1	1	1	1	1
Total foreign,	94	165	163	149	203	198	243	368	361
Total native,	152	63	65	143	57	62	295	120	127
Unknown,	—	18	18	2	34	34	2	52	52
Totals,	246	246	246	294	294	294	540	540	540

4. — *Residence of Insane Persons admitted from the Community.*

	FIRST ADMITTED TO ANY HOSPITAL.			OTHER ADMISSIONS.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Massachusetts: —									
Bristol County,	1	—	1	—	—	—	1	—	1
Suffolk County,	242	288	530	44	61	105	286	349	635
Middlesex County,	1	1	2	1	—	1	2	1	3
Essex County,	1	1	2	—	—	—	1	1	2
Norfolk County,	—	2	2	—	—	—	—	2	2
Plymouth County,	1	1	2	3	—	3	4	1	5
Total resident,	246	293	539	48	61	109	294	354	648
Connecticut,	—	1	1	—	—	—	—	1	1
Total nonresident,	—	1	1	—	—	—	—	1	1
Cities and towns of 10,000 or over, .	245	289	534	47	61	108	292	350	642
Cities and towns under 10,000, .	1	5	6	1	—	1	2	5	7
Totals,	246	294	540	48	61	109	294	355	649

5. — *Civil Condition of Insane Persons first admitted to Any Hospital.*

	Males.	Females.	Totals.
Unmarried,	105	119	224
Married,	119	124	243
Widowed,	21	47	68
Divorced,	1	4	5
Totals,	246	294	540

6. — *Occupation of Insane Persons first admitted to Any Hospital.*

MALES.

Author,	1	Lawyers,	2
Baker,	1	Machinists,	14
Barbers,	3	Masons,	3
Bartenders,	2	Meat cutter,	1
Belt makers,	2	Metal workers,	2
Blacksmiths,	2	Music teacher,	1
Boiler makers,	2	Newsboy,	1
Bookkeepers,	3	Newsdealer,	1
Bookbinder,	1	None,	42
Bottler,	1	Painters,	8
Broker,	1	Pedlers,	2
Carpenters,	5	Photographer,	1
Caterer,	1	Physician,	1
Cigar maker,	1	Plumbers,	2
Civil engineer,	1	Policeman,	1
Clerks,	19	Porters,	4
Coachmen,	2	Printers,	8
Confectioner,	1	Railroad men,	4
Cooks,	3	Salesmen,	6
Dancing master,	1	Shoemakers,	3
Dentist,	1	Silversmith,	1
Draughtsman,	1	Stableman,	1
Electricians,	4	Stenographer,	1
Engineers,	3	Storekeepers,	2
Errand boys,	3	Steward,	1
Farmer,	1	Students,	2
Firemen,	3	Tailors,	6
Fisherman,	1	Teacher,	1
Foreman,	1	Teamsters,	14
Grocer,	1	Umbrella maker,	1
Insurance agents,	2	Waiters,	2
Interpreter,	1	Weaver,	1
Janitor,	1		
Laborers,	28		
Laundrymen,	2		

6. — Occupation of Insane Persons first admitted to Any Hospital — Con.

FEMALES.	
Actress,	1
Authoress,	1
Bookbinder,	1
Bookkeepers,	2
Box maker,	1
Cashier,	1
Cigar makers,	2
Clerks,	6
Cooks,	6
Dentist,	1
Domestics,	34
Dressmakers,	6
Housework at home, . . .	114
Laundresses,	6
Lodging-house keeper, . .	1
Milliner,	1
Musician,	1
None,	75
Nurses,	7
Pedler,	1
Salesladies,	5
Scrubwoman,	1
Seamstress,	1
Shoemaker,	1
Shop girls,	3
Stenographers,	3
Storekeepers,	3
Tailoresses,	3
Teacher, school,	1
Waitresses,	5
	294

7. — *Ages of Insane at First Attack, Admission and Death.*

	FIRST ADMITTED TO ANY HOSPITAL.						DIED.					
	AT FIRST ATTACK.			WHEN ADMITTED.			AT FIRST ATTACK.			AT DEATH.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Congenital,	4	15	19	—	—	—	—	3	3	—	—	—
15 years or less,	—	3	3	—	2	2	—	—	—	—	—	—
From 15 to 20 years,	13	14	27	11	16	27	—	1	1	—	—	—
20 to 25 years,	14	21	35	19	30	49	2	—	2	—	—	—
25 to 30 years,	17	29	46	17	27	44	1	2	3	2	1	3
30 to 35 years,	19	33	52	24	32	56	10	4	14	6	2	8
35 to 40 years,	34	35	69	32	32	64	11	6	17	9	5	14
40 to 50 years,	39	46	85	50	59	109	7	11	18	9	12	21
50 to 60 years,	37	33	70	46	37	83	15	13	28	16	16	32
60 to 70 years,	19	21	40	31	30	61	14	12	26	14	11	25
70 to 80 years,	13	22	35	13	26	39	11	12	23	11	14	25
Over 80 years,	1	1	2	3	2	5	2	4	6	5	9	14
Totals,	210	273	483	246	293	539	73	68	141	73	72	145
Unknown,	36	21	57	—	1	1	—	4	4	—	—	—
Total of persons,	246	294	540	246	294	540	73	72	145	73	72	145
Mean known ages (in years),	42.17	41.47	41.82	44.7	42.62	43.66	51.16	55.1	53.13	54.59	58.64	56.62

8. — Probable Cause of Mental Disease in Persons first admitted to Any Hospital.

EXCITING CAUSES.	ADMITTED.			PREDISPOSING CAUSES.					
	Males.	Females.	Totals.	HEREDITARY TENDENCY.		NEUROTIC TENDENCY.		INTEMPERANCE.	
				Males.	Females.	Totals.	Males.	Females.	Totals.
Acute infectious diseases,	1	-	1	-	-	-	-	-	-
Alcohol,	51	39	90	1	5	6	-	39	90
Arteriosclerosis,	19	9	28	-	2	2	-	-	2
Arteriosclerosis and nephritis,	1	-	1	-	-	-	-	-	-
Bulbar paralysis,	-	1	1	-	-	-	-	-	-
Cerebral hemorrhage,	-	-	-	-	-	-	-	-	-
Cerebral tumor,	-	2	2	-	-	-	-	-	-
Childbirth,	-	12	12	-	5	5	-	-	-
Congenital,	4	5	9	-	1	1	-	-	-
Drug habit,	4	3	7	1	1	2	-	-	-
Epilepsy,	2	3	5	-	-	-	-	1	1
Goiter,	-	3	3	-	2	2	-	-	-
Meningitis,	-	1	1	-	-	-	-	-	-
Menopause,	-	5	5	-	-	-	-	-	-
Nephritis,	-	-	-	-	-	-	-	-	-
Organic heart disease,	-	1	1	-	-	-	-	-	-
Overstudy,	3	2	5	1	1	2	-	-	-
Pernicious anemia,	-	2	2	-	-	-	-	-	-
Pregnancy,	15	2	17	-	-	-	-	-	-
Senility,	1	3	4	1	6	7	-	3	3
Surgical operation,	1	4	5	-	1	1	-	-	-
Syphilis,	55	9	64	-	2	2	-	1	4
Toxemia,	-	4	4	-	1	1	-	-	-
Trauma,	4	3	7	-	-	-	-	-	-
Tuberculosis,	4	6	10	1	-	1	-	-	-
Worry,	11	7	18	-	1	1	1	-	1
Totals,	176	161	337	5	27	32	1	44	103
Unknown,	70	133	203	15	55	70	-	-	-
Totals,	246	294	540	20	82	102	1	44	103

9. — *Probable Duration of Mental Disease before Admission.*

PREVIOUS DURATION.	FIRST ADMITTED TO ANY HOSPITAL.		
	Males.	Females.	Totals.
Congenital,	4	20	24
Less than 1 month,	52	48	100
From 1 to 3 months,	33	42	75
3 to 6 months,	25	27	52
6 to 12 months,	18	32	50
1 to 2 years,	27	44	71
2 to 5 years,	31	34	65
5 to 10 years,	11	18	29
10 to 20 years,	6	5	11
Over 20 years,	1	—	1
Totals,	208	270	478
Unknown,	38	24	62
Totals,	246	294	540
Average known duration (in years), . . .	1.42	1.43	1.43

10. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died.*

FORM OF DISEASE.

	COM- MITTED.			DISCHARGED.												DIED.			AGGRE- GATES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
				RECOVERED.			CAPABLE OF SELF- SUPPORT.			IMPROVED.			NOT IMPROVED.									NOT INSANE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
A. — First admitted to any hospital: —																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

10. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died*
— Concluded.

FORM OF DISEASE.	Com- mitted.			Discharged.												Died.			Aggre- gates.		
				Recovered.			Capable of self- support.		Improved.		Not improved.		Not insane.								
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.			
B. — Other admissions: —																					
Senile psychoses,	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
General paralysis,	4	1	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Cerebral arteriosclerosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Cerebral syphilis,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Polynuritic psychosis,	7	3	10	3	2	5	—	1	1	—	—	—	—	—	—	—	—	—	—		
Alcoholic psychoses, acute,	3	2	5	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—		
Alcoholic psychoses, chronic,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Toxic psychoses,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Involution melancholia,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Depression undifferentiated,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Dementia præcox,	14	8	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Paranoid conditions,	1	5	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Manic-depressive psychoses,	13	34	47	5	15	20	1	4	5	1	1	1	1	4	5	8	23	31	7		
Allied to manic-depressive psychoses,	—	1	1	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—		
Epileptic psychoses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Hysterical psychosis,	1	1	2	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—		
Neurasthenic and psychasthenic psychosis,	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Constitutional inferiority,	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Imbecility,	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Unclassified,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Totals,	50	61	111	12	17	29	1	3	8	11	3	4	7	7	10	17	26	39	65		
Aggregate cases,	296	355	651	40	47	87	11	1	12	27	58	85	19	33	52	73	172	214	386		
Aggregate persons,	294	355	649	40	47	87	11	1	12	27	58	85	19	33	52	73	172	214	386		

11. — Discharges of the Insane classified by Admission and Result.

NUMBER OF THE ADMISSION.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			DIED.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	29	35	64	11	1	12	26	54	80	17	29	46	2	3	5	68	64	132	153	186	339
Second,	8	6	14	-	-	-	1	2	3	2	3	5	-	-	-	5	5	10	16	16	32
Third,	3	3	6	-	-	-	-	1	1	-	-	-	-	-	-	-	1	1	3	5	8
Fourth,	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	2	2
Fifth,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1
Sixth,	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	3	3
Totals,	40	47	87	11	1	12	27	58	85	19	32	51	2	3	5	73	72	145	172	213	385
First admissions to any hospital,	28	30	58	10	1	11	24	50	74	16	28	44	2	3	5	66	62	128	146	174	320

12. — Cause of Death and Form of Mental Disease in Persons who died — Concluded.

CAUSES.	INVOLUTION MELANCHOLIA.		DEMENTIA PRÆCOX.		PARANOIC CONDITION.		MANIC-DEPRESSIVE PSYCHOSES.		IMBECILITY.		POLY-NEURITIC PSYCHOSES.		EPILEPTIC PSYCHOSES.		UNCLASSIFIED.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
General diseases: —																
Carcinoma of stomach,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra,	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Diabetes mellitus with broncho-pneumonia,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra and arteriosclerosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia decubitus,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia from ulcer of leg,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nervous system: —																
Exhaustion psychosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bulbar paralysis,	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bulbar softening and chronic interstitial nephritis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General paralysis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Status epilepticus,	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Cerebral œdema,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septic meningitis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exhaustion of manic-depressive insanity,	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—
Cerebral cyst,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Circulatory system: —																
Gangrene of arm,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arteriosclerosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arteriosclerosis and broncho-pneumonia,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral hemorrhage,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Periculous anæmia,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Organic heart disease,	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Acute cardiac dilatation,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Organic heart disease and interstitial nephritis,	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Endocarditis, septic, with multiple emboli,	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—

13. — Duration of Mental Disease and its Treatment in Persons who recovered or died.

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.					
	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION.			WHOLE KNOWN PERIOD OF MENTAL DISEASE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
A. — Recovered: —												
Under 1 month, . . .	10	12	22	3	3	6	3	2	5	—	—	—
From 1 to 3 months, . .	9	11	20	14	13	27	4	6	10	1	1	2
3 to 6 months, . . .	1	1	2	6	6	12	8	8	16	—	2	7
6 to 12 months, . . .	4	4	8	3	7	10	7	9	16	3	3	6
1 to 2 years, . . .	2	1	3	2	1	3	4	4	8	2	7	10
2 to 5 years, . . .	2	1	3	—	—	—	2	1	3	3	—	4
Over 5 years, . . .	—	—	—	—	—	—	—	—	—	1	—	—
Unknown, . . .	—	—	—	—	—	—	—	—	—	2	4	6
Totals, . . .	28	30	58	28	30	58	28	30	58	12	17	29
Average of known cases (in months),	2.9	2.91	5.81	4.05	3.8	7.85	6.95	6.71	13.66	25.72	12.94	38.66
										20.56	14.03	34.59

B. — Died: —

Congenital,	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	59	60	119	66	62	128	59	60	119	5	9	14	5	10	15	—	—	—	—
Under 1 month,	10	8	18	17	17	34	1	6	7	—	—	—	—	—	—	—	—	—	—
From 1 to 3 months,	11	12	23	11	18	29	9	4	13	—	—	—	1	—	1	—	—	—	1
3 to 6 months,	6	7	13	7	5	12	5	6	11	—	—	—	—	—	—	—	—	—	—
6 to 12 months,	8	8	16	9	6	15	7	10	17	1	1	2	—	2	—	2	—	2	2
1 to 2 years,	10	10	20	11	5	16	16	11	27	—	2	2	1	2	3	2	—	3	3
2 to 5 years,	10	11	21	5	7	12	11	15	26	—	—	—	—	—	—	—	—	—	—
5 to 10 years,	3	1	4	3	3	6	6	4	10	1	1	2	—	4	4	—	4	4	4
10 to 20 years,	1	—	1	2	1	3	2	1	3	2	3	5	3	1	4	3	1	4	4
Over 20 years,	—	—	—	1	—	1	2	—	2	1	2	3	—	1	1	—	1	1	1
Totals,	59	60	119	66	62	128	59	60	119	5	9	14	5	10	15	—	—	—	—
Unknown,	7	2	9	—	—	—	7	2	9	2	1	3	2	—	2	—	—	—	2
Totals,	66	62	128	66	62	128	66	62	128	7	10	17	7	10	17	7	10	17	17
Average of known cases (in months),	15.11	10.75	12.93	21.23	13.4	17.32	36.34	24.15	30.24	178.	197.6	187.8	96	112.7	104.4	—	—	—	—

SIXTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE YEAR ENDING NOVEMBER 30, 1914.



BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
32 DERNE STREET.
1915.

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1915.

APPROVED BY
THE STATE BOARD OF PUBLICATION.

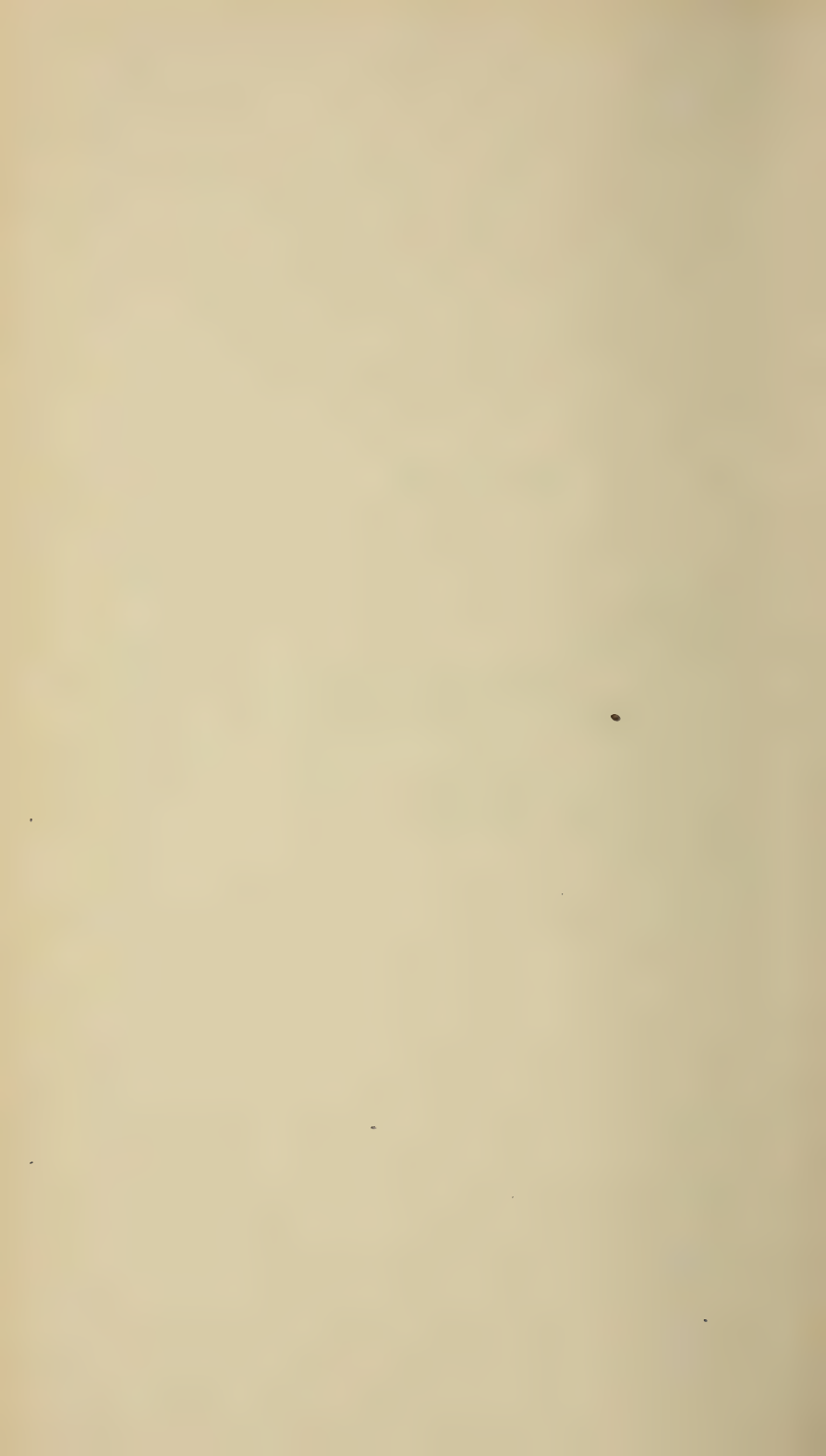
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TRUSTEES

OF THE

BOSTON STATE HOSPITAL.

WALTER CHANNING, M.D., ¹ <i>Chairman</i> ,	Brookline.
HENRY LEFAVOUR, <i>Secretary</i>,	. . . . .	Boston.
Mrs. HENRIETTA LOWELL, ¹	. . . . .	Brookline.
Mrs. KATHERINE G. DEVINE,	. . . . .	Boston.
MICHAEL J. JORDAN, ¹	. . . . .	Dorchester.
LEHMAN PICKERT,	. . . . .	Brookline.
HON. MELVIN S. NASH,	. . . . .	Hanover.
Mrs. HELEN B. HOPKINS,	. . . . .	Boston.
JOHN A. KIGGEN,	. . . . .	Hyde Park.

Stated meetings of the trustees are held at the hospital on the second Tuesday of each month.

VISITING COMMITTEES, 1914-15.

March,	Dr. CHANNING and Mrs. DEVINE.
April,	Mr. NASH and Mr. PICKERT.
June,	Dr. CHANNING and Mrs. DEVINE.
July,	Mr. LEFAVOUR and Mrs. LOWELL.
August,	Mr. JORDAN and Mr. PICKERT.
October (First half),	Mrs. HOPKINS and Mrs. DEVINE.
October (Second half),	Mr. LEFAVOUR and Mr. KIGGEN.
November (First half),	Mr. NASH and Mr. PICKERT.
November (Second half),	Mr. LEFAVOUR and Mr. KIGGEN.
December,	Mrs. DEVINE and Mrs. HOPKINS.

Visits by the full Board in February, May, September and December.

¹ Resigned.

RESIDENT OFFICERS

OF THE

BOSTON STATE HOSPITAL.

HENRY P. FROST, M.D.,	<i>Superintendent.</i>
SAMUEL W. CRITTENDEN, M.D.,	<i>Assistant Superintendent.</i>
ERMY C. NOBLE, M.D.,	<i>First Assistant Physician.</i>
MARY E. GILL-NOBLE, M.D.,	<i>Assistant Physician.</i>
JOHN I. WISEMAN, M.D.,	<i>Assistant Physician.</i>
WILLIAM M. DOBSON, M.D.,	<i>Assistant Physician.</i>
EDMUND M. PEASE, M.D.,	<i>Assistant Physician.</i>
ISIDOR PERLSTEIN, M.D.,	<i>Assistant Physician.</i>
MYRTELLE M. CANAVAN, M.D.,	<i>Pathologist.</i>
JANE ROBERTSON,	<i>Superintendent of Nurses.</i>
JEAN TAYLOR,	<i>Assistant Superintendent of Nurses.</i>
FRED L. BROWN,	<i>Treasurer and Clerk.</i>
IDA C. AITKEN,	<i>Matron, East Group.</i>
VIOLET O. LAWLEY,	<i>Matron, West Group.</i>

NONRESIDENT OFFICERS.

WILLIAM E. ELTON,	<i>Steward.</i>
ARTHUR E. MORSE,	<i>Chief Engineer.</i>
LOUIS S. WHITE,	<i>Farmer.</i>

BOARD OF CONSULTING PHYSICIANS.

CHARLES F. WITHINGTON, M.D.,	<i>Physician.</i>
JOHN L. AMES, M.D.,	<i>Physician.</i>
JOHN BAPST BLAKE, M.D.,	<i>Surgeon.</i>
FRED B. LUND, M.D.,	<i>Surgeon.</i>
JOHN JENKS THOMAS, M.D.,	<i>Neurologist.</i>
ROBERT G. LORING, M.D.,	<i>Ophthalmologist.</i>
ALFRED M. AMADON, M.D.,	<i>Otologist.</i>
HARRIS P. MOSHER, M.D.,	<i>Laryngologist.</i>
MALCOLM STORER, M.D.,	<i>Gynecologist.</i>
CHARLES J. WHITE, M.D.,	<i>Dermatologist.</i>

OFFICERS
OF THE
PSYCHOPATHIC DEPARTMENT
OF THE
BOSTON STATE HOSPITAL.

MEDICAL OFFICERS.

ELMER E. SOUTHARD, M.D.,	Director.
HERMAN M. ADLER, M.D.,	Chief of Staff.
ANNA C. WELLINGTON, M.D.,	Executive Assistant.
JAMES F. MCFADDEN, M.D.,	Assistant Physician.
HARRIET M. GERVAIS, M.D.,	Assistant Physician.
HARRY C. SOLOMON, M.D.,	Junior Assistant Physician.
DONALD GREGG, M.D.,	Assistant Physician, Out-patient Service.
ROBERT M. YERKES, Ph.D.,	Psychologist.
MARJORIE SAWYER,	Assistant Psychologist.
CELIO ROSSY,	Interne in Psychology.

INTERNES.

E. B. ALLEN, July, 1914, to July, 1915.
EARL BLOOMER, June, 1914, to June, 1915.
H. A. BUNKER, June, 1914, to June, 1915.
MERVIN FREEMAN, October, 1914, to June, 1915.
A. G. GOULD, October, 1914, to June, 1915.
G. P. GRABFIELD, October, 1914, to June, 1915.
J. P. HADFIELD, October, 1914, to June, 1915.
CARL B. HUDSON, October, 1914, to June, 1915.
W. A. MACINTYRE, May, 1914, to May, 1915.
D. J. MACPHERSON, October, 1914, to June, 1915.
C. B. J. SCHORER, July, 1914, temporary.
DEWAYNE TOWNSEND, October, 1914, to June, 1915.
HARRIS H. VAIL, October, 1914, to June, 1915.
E. S. WELLES, October, 1914, to June, 1915.
HILMAR KOEFOD, February, 1914, to June, 1915.
ANNA E. STEFFEN, October, 1914, to June, 1915.

SPECIAL WORKERS.

MARY C. JARRETT,	Chief of Social Service Department.
GERTRUDE INNES,	Dietitian.
ELIZABETH CHAPMAN,	Historian.

The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to present herewith their sixth annual report.

ADDITIONS TO THE HOSPITAL.

During the year there have been completed the following additions and improvements authorized by the Legislature of 1913: a building for 120 women patients of the excited class, which has been named the Cowles building; a reception building for 48 male patients, to be known as Ward F; two cottages for parole men patients, with 52 beds; a dormitory for 52 outdoor workers on the farm; a new dining hall for men with a seating capacity of 200; and a central plant for heating and lighting with a system of conduits leading to all the existing buildings and with connections for all future buildings. The C building, formerly occupied by the excited women patients, has been thoroughly renovated, and is now occupied as an open ward for convalescent women. It is a pleasure to record that four of these buildings were completed for 90 per cent. of the estimated cost. As no special appropriations were made by the last Legislature, all authorized construction has now been completed.

GROWTH OF THE HOSPITAL.

By reason of these additions the main hospital has been enabled to admit a larger number of patients, the population Nov. 30, 1914, being 1,374, as against 1,220 the corresponding day of the preceding year.

PROPOSED NEW CONSTRUCTION.

When the hospital was acquired by the State in 1908, it was uncomfortably crowded by 814 patients and possessed no adequate service buildings. Considerable progress has accordingly been made toward the enlargement of its capacity with a view to accommodating at least 2,000 patients. It now has the needed laundry, women's industrial room, storehouse, refrigerating apparatus and power plant. Certain much needed facilities remain yet to be supplied in order that the institution may be administered both economically and efficiently. Special appropriations for the following new construction are therefore asked for the coming year and have received the approval of the State Board of Insanity:—

Constructing and furnishing male infirmary building, . . .	\$300,000
Constructing and furnishing women's custodial building, . . .	127,000
Constructing and furnishing nurses' home, west group, . . .	65,000
Constructing horse stable,	11,400
Constructing two barns and milk house,	11,700
Constructing hay barn,	9,900
Water and sewer service extension,	5,000
Constructing and furnishing industrial building,	37,000
Carpenter shop equipment,	1,500
Trees and shrubbery,	500
Fire alarm and protection,	2,500
Moving icehouse and piggery,	4,000
Constructing fire escapes,	1,550
Total,	<hr/> \$577,050

In addition to the foregoing, provision should be made in the near future for a chapel, entertainment hall and gymnasium for the east group, for a residence for the superintendent and cottages for the steward and farmer, for an enclosing fence with gates and gate lodges, and for the necessary roads, walks and planting. With these additions the general provisions for the hospital would be complete. Then the hospital units with the necessary dining rooms could be added to any extent con-

sidered desirable. While the limit of 2,000 patients has been suggested, it would be possible with this equipment and the present organization to increase the capacity to a much larger number.

MAINTENANCE.

For the maintenance of the hospital the sum of \$495,324 is requested, divided as follows: for the main hospital, \$383,666, and for the psychopathic department, \$111,658. The estimate for the main hospital is based on an expected population of 1,450 patients. The psychopathic department has 110 beds, but will probably be called on to admit 2,000 patients for observation and treatment in addition to its auxiliary out-patient and social service.

THE PSYCHOPATHIC DEPARTMENT.

The steadily increasing recognition of the usefulness of the psychopathic department is very encouraging and more than justifies the expenditure of the appropriation asked for. The threefold function of the hospital for observation, treatment and research presents a complicated problem, the full development of which has not yet been attained. It is rendering a very valuable service with its out-patient department and its social work. It is being seen more clearly here as elsewhere that the full duty of the State with reference to insanity is not confined to the custody of patients within the institutions, and it is more than probable that the cost of maintaining the custodial institution will ultimately be decreased, the more attention is paid to cases of incipency and predisposition before the condition warrants commitment. Increased expense at this point will be ultimate economy.

The psychopathic department has from the outset served as a training school for institution and other officials, and the trustees at the request of the State Board of Insanity have authorized the admission as internes of not only the officers of other institutions but also candidates for appointment as assistant physicians. One drawback is the depletion of our own staff by calls from other institutions. Salaries should be so

adjusted that we may have at least a nucleus of efficient and permanent officers.

At the request of the State Board of Insanity the assistant state pathologist has been given quarters at this department.

NURSES AND ATTENDANTS.

The health and comfort of our patients depend on the character and ability of the nurses and attendants. The low wages and the nature of the duties are not attractive, and while the hospital has been more than ordinarily successful in securing the services of faithful men and women, the situation leaves much to be desired. The increased use of women nurses in the male wards has been most satisfactory. A larger number of better trained nurses is very desirable. This has been found especially necessary in the psychopathic department, which has largely the character of a general hospital. But the wards of our custodial institutions need also nurses with more advanced training. At the request of the State Board the trustees are at present considering the feasibility of establishing, in addition to their present training school, a school which will give the desired special training, the graduates of which will be eligible for appointment in all the hospitals of the State.

CHANGES IN THE BOARD.

The trustees regret to have lost by resignation from the Board the valuable services of three of its members, — Dr. Walter Channing and Mrs. Guy Lowell of Brookline, and Mr. Michael J. Jordan of Boston. The places of two of these have been filled by the appointment of Mrs. Woolsey Hopkins and Mr. John A. Kiggen, both of Boston.

ADMINISTRATION.

The general condition of the hospital is excellent. This is due to the untiring effort of the superintendent and of the director of the psychopathic department and to the loyalty, zeal and spirit of co-operation that prevails among all our

officers, to whom the trustees again desire to express their grateful appreciation. The reports of the superintendent, the treasurer and the director of the psychopathic department are appended and give in detail the operations of the year.

LEHMAN PICKERT.
HENRY LEFAVOUR.
KATHERINE G. DEVINE.
MELVIN S. NASH.
HELEN B. HOPKINS.
JOHN A. KIGGEN.

Nov. 30, 1914.

SUPERINTENDENT'S REPORT.

To the Trustees of the Boston State Hospital.

I have the honor to present herewith the sixth annual report of the hospital, for the year ending Nov. 30, 1914, together with the statistical tables prescribed by the State Board of Insanity, which are for the year ending September 30.

There were 1,316 patients in the hospital Oct. 1, 1913, namely: in the main hospital, 1,225; in the psychopathic department, 91. Included in the figures for the psychopathic department were 23 cases held "for temporary care and observation."

There were 2,334 admissions, 2,005 dismissals and 225 deaths, leaving 1,420 at the close of the year, distributed as follows: main hospital, committed, 1,319, voluntary, 13; psychopathic department, committed, 31, voluntary, 24, temporary care, 33.

The daily average number of patients was 1,344, of whom 1,183 were State charges, 73 reimbursing and 88 private.

The voluntary admissions numbered 550, of whom 198 were classed as not insane. There were admitted for temporary care and observation 1,541 cases, of whom 326 were subsequently committed to this hospital and 220 others remained after the observation period as voluntary patients.

Exclusive of nominal admissions for discharge (141), temporary care cases (995), transfers (26) and returns from visit or escape (23), and excluding also 198 voluntary patients not insane, 955 patients were received, of whom 845 were admitted for the first time to this hospital, 89 for the second time, 15 for the third time, and 6 for the fourth to the tenth time.

The cases never before in any hospital for the insane numbered 785. The following data concern only this group of 785 new accessions. Three hundred forty-seven, or 44.2 per cent., were foreign born, and 552, or 70.32 per cent., were of foreign parentage on one or both sides.

The average age on admission was 43.6 years; 19 per cent. were sixty years of age or more, and 18 were over eighty years old.

The probable cause of the mental disease was noted in 421 of these cases; the cause was unascertained in 364. Of ascertained causes senility and arteriosclerosis take first place, being accountable for 150 cases; alcohol comes next with 99 cases attributed to this as the principal cause, while in 34 others it was a contributing or predisposing factor; syphilis was responsible for 73. Twenty-five cases had their onset in connection with the menopause; 10 were due to epilepsy; 10 were congenital.

Figured on the total number, including those whose cause was unascertained, the percentage of cases due to the principal causes above mentioned was: senility and arteriosclerosis, 19.11 per cent.; alcohol, 12.61 per cent.; syphilis, 9.3 per cent.

The figures showing the influence of heredity in the production of insanity are again presented with the explanation that the data are unreliable. Heredity is shown in our tables in only 58 cases, or less than 8 per cent. of the admissions.

There were 60 cases of general paralysis, or 7.65 per cent. of the first admissions, of whom 5 were women; 140 cases of dementia præcox, or 17.83 per cent.; and 94 cases of manic-depressive insanity, or 11.97 per cent. The alcoholic psychoses numbered 85, or 10.83 per cent.; senile psychoses, 73, or 9.3 per cent.; and cerebral arteriosclerosis, 64, or 8.15 per cent.

The discharges, exclusive of transfers, temporary care and "voluntary not insane," numbered 608. Of these, 145 were recovered and 152 improved, including 10 classed as capable of self-support.

The low recovery rate, only 15.1 per cent. of the number received, is in part due to the inclusion of a large number of voluntary patients who remain under treatment for short periods only and leave before recovering or are discharged as not insane.

There were 203 deaths, exclusive of the temporary care service in which 22 deaths occurred. Forty-five patients died from general paralysis; 7 from other diseases of the nervous system; 37 from pneumonia; 30 from heart disease; 10 from tuberculosis. Two deaths were from pellagra.

There was one fatal accident. A patient dying unexpectedly was found to have broken ribs and an injury to the throat, which indicated that he had been choked. Two attendants

were indicted and one was brought to trial, but the jury disagreed. It was claimed for the defence that the injuries could have been inflicted by a fellow patient. There was no direct evidence against the accused attendants, both of whom had good records, but responsibility seemed to lie with them as the persons having charge of the patient at the time.

The record of this unfortunate occurrence, of a nature to cast discredit upon the nursing force, should in fairness be coupled with a statement of my belief that in general the nursing care of the patients is above criticism and its conscientious and kindly performance a matter of pride with our nurses and attendants. Improved conditions of service have given us finally not a nucleus alone but a complement of trained and experienced nurses, who maintain in the wards the spirit of the management and are quick to discountenance unkindness and indifference on the part of newcomers. The relations of confidence and friendship existing between the nurses and their charges, the unusual freedom with which visitors are admitted to all parts of the hospital, and the almost complete absence of complaints from patients and their friends attest the truth of this statement, and justify an expression of confidence which I feel is well deserved.

The period covered by this report was one peculiarly full of perplexities and difficulties for the management of this hospital, as of others in the State. The enactment of legislation radically affecting the institutions, preceded by a long period of somewhat acrimonious discussion, and followed by the resignation of valued advisers from the Board of Trustees, uncertainty as to methods to be followed, and unexpected curtailment of maintenance funds, made new problems for the administration which measurably affected results. Retrenchment in service and pseudoeconomies in every department were necessary, concerning which there is but one thing to be said in commendation, — that the situation demonstrated a degree and diffusion of loyalty that is a valuable asset.

GROWTH OF THE HOSPITAL.

New buildings accommodating 262 patients have been completed and occupied during the year. The building for 120 women patients of the disturbed class, named in honor of Dr.

Edward Cowles, the Nestor of New England psychiatry, was opened March 5. It houses all of our excited and violent women except the acute cases, and removes these patients from the neighborhood of the quiet wards which they heretofore disturbed. The reception building for men — Ward F — was occupied July 3, enabling us to receive and treat acute cases of both sexes in the east group in accordance with the plan of development. The two cottages for parole men were ready October 13, and the farm dormitory for outdoor workers received patients on November 12, at which time, also, the new dining room serving these buildings was put in use. Proper classification and selective employment are very much facilitated by these new quarters, and there is also relief, at least temporary, from the overcrowding which prevailed in the Fisher wards.

The central heating, lighting and power plant was completed early in the summer, and the boilers at Fisher, infirmary and Cowles buildings were put out of service, greatly reducing operating expenses and making possible the addition of future buildings as planned, without any serious problem as regards heating.

PROPOSED EXTENSION.

The State Board of Insanity has approved plans and estimates prepared by the trustees and will request appropriations from the next General Court for the following purposes: —

Constructing and furnishing male infirmary building,	\$300,000
Constructing and furnishing women's custodial building,	127,000
Constructing and furnishing nurses' home, west group,	65,000
Constructing horse stable,	11,400
Constructing two barns and milk house,	11,700
Constructing hay barn,	9,900
Water and sewer service extension,	5,000
Constructing and furnishing industrial building,	37,000
Carpenter shop equipment,	1,500
Trees and shrubbery,	500
Fire alarm and protection,	2,500
Moving icehouse and piggery,	4,000
Constructing fire escapes,	1,550
Total,	\$577,050

These proposed buildings will increase the capacity of the hospital to 1,900 patients and greatly promote its usefulness to this community, which has for so long a time suffered from insufficient provision, near at hand, for its insane.

ADMINISTRATION.

By reason of increase in the size of the hospital and rearrangement made necessary on account of new buildings occupied, some changes were made in the organization, which was then plotted on a chart serving to define responsibility and lines of control. The first assistant physician was given an enlarged function in the west group, where were added an assistant to the superintendent of nurses and a matron. The matrons' department was extended to include management of the main kitchens, while clothing clerks under their supervision took over the work in connection with the sewing room and the issue and care of patients' wearing apparel. The mechanics were put under one head; the steward was given opportunity for more attention to purchase and issue of supplies and to accounting.

A new system of requisitions and stock accounting was introduced by direction of the Auditor, also detailed accounts for the farm, making necessary more clerical help.

THE MEDICAL SERVICE.

The following changes in the medical staff have taken place:—

Dr. Cyril G. Richards, assistant physician, resigned March 1 to accept the position of resident physician at the almshouse hospital on Long Island. The vacancy thus created was filled by the appointment of Dr. Edmund M. Pease, formerly of the Kalamazoo State Hospital, Michigan, and before that a member of the staff of McLean Hospital.

Dr. Myrtelle M. Canavan, who had served as pathologist since 1910, and had organized and developed our laboratory, resigned July 1 to become assistant pathologist to the State Board of Insanity; and on November 25 Dr. Isidor Perlstein, junior assistant physician, resigned to engage in private practice in the west.

Dr. Ermy C. Noble, with four years of faithful and efficient service to his credit in lower grades, was promoted to be first assistant physician, with duties of general supervision in the west group.

The medical work has been continued along the same lines as previously reported. Staff meetings were held regularly, at which 175 cases were presented for discussion concerning diagnosis, treatment, discharge, etc.

The report of Dr. Walter J. Whelan, dentist, shows work done by him during the year as follows:—

Operations,	1,062
Treatments,	86
Prophylactic treatments,	253
Pyorrhœa,	25
Fillings:—	
Amalgam,	63
Cement,	36
Gutta-percha,	78
Extractions,	393
Alveolar abscess,	49
Stomatitis ulcerosa,	2
Fractures,	2
Anæsthesia:—	
Local (cocaine and novococaine, and ethyl chloride),	106
General,	23
Prosthetic work:—	
Plates,	10
Bridges,	2
Crowns,	2
Plates repaired,	7
Crowns and bridges removed,	3

Members of the consulting staff have placed us under renewed obligation by help and advice in a number of cases referred to them.

SOCIAL SERVICE.

Last year the organized beginning of social service was chronicled and optimistic predictions were made for its future. With the experience of seventeen months' work to look back upon, we feel that expectations have been more than realized, and it is difficult to understand how we ever operated the hos-

pital without it. The interesting report of Miss Fletcher, social worker, presented herewith, is worthy of serious attention as pointing the way to extension of this important part of the hospital's work.

TRAINING SCHOOL.

Additions to the curriculum have been made, notably instruction in the out-patient field and class work in occupation for invalids. The association with general hospital nurses in our wards, secured through affiliation, has proved stimulating to our nurses, in addition to the experience and instruction received in their course at the City Hospital, which is now a part of their training. It is hoped to develop further and to extend the plan of exchanging nurses with other hospitals and thus place the training we give on the plane of the best general hospital schools.

Graduating exercises for this year's class, numbering 10 women and 1 man, were held on the evening of November 27, on which occasion the address to the graduates was delivered by Mr. John A. Kiggen of the Board of Trustees. The usual reception and dance followed, and these combined functions were enjoyed by a large party of friends and former pupils, as well as by our own staff.

OCCUPATION OF PATIENTS.

The therapeutic effect of occupation in proper dosage and variety has been so often pointed out in these reports that it is not necessary to emphasize it anew. We have continued our efforts to include in the industrial group two classes of patients for whom it is especially beneficial, — the demented and the excited. Particular attention is given to systematic employment in the wards at certain hours for those who do not go to the workrooms, and the training of nurses and attendants to conduct these occupation classes has given us very encouraging results. Products of the patients' industry are in large part articles of use in the hospital, but there is, in addition, a considerable output of ornamental objects which are placed on exhibition and sold to the public.

REPAIRS AND IMPROVEMENTS.

Ward building C was given a thorough renovation after removal of patients to Cowles. Besides carpenter work, plastering and painting, electric lights were installed in the first floor rooms and new fixtures in the corridors, and lavatories were put in the toilet rooms. When ready for occupancy again, the building was filled by transfer of patients from E, which was then prepared for use as nurses' quarters until we can get a nurses' home built. The three wards in infirmary which had not received attention last year were painted, also both kitchens, the offices and corridors of the administration building, the chapel, the machine shop and paint shop. The farmhouse was repaired, a new roof put on, and inside and outside painting done. The old paint shop was repaired and painted and put to use as a garage, and another outhouse was similarly put in order for storage of grain.

The Stedman operating room was painted, a granolithic floor laid in the sterilizing room, and an outfit of sterilizers installed. A large Henrici washing machine was added to the laundry equipment. There were many minor repairs and improvements not to be specifically mentioned.

FARM AND GROUNDS.

Further improvement of the farm land has been made, namely, drainage ditches dug, agricultural tile laid, surplus earth distributed, stones gathered up. Very good crops were raised and seasonably stored. The dairy herd is reduced to thirty, a number too small for profitable handling by reason of lack of funds to replenish it. A new cooler and a pasteurizer were installed in the milk room. Employment was given at outdoor work to an average of 75 patients during the months when such work is possible. All of the grading about the reception building was done by patients, as were similar jobs at other points. There is still much to do next season around the new cottages and the farm dormitory. The lawns at east group had much more attention than usual, owing to the help of convalescent patients from the new wards opened there.

MAINTENANCE.

The amount expended for maintenance was \$427,991.35, which, divided by the daily average number of patients, 1,371.27, makes the weekly per capita cost \$6. Receipts for board of private patients were \$26,446.13; from reimbursing patients, \$13,668.07; from sales and other sources, \$2,794.18, making the total income \$42,908.38.

Deducting receipts from gross expenses, the net cost of maintenance was \$385,082.97, which, divided by the above average number of patients, gives a net weekly per capita cost of \$5.40.

The above statement includes the psychopathic department, which, on account of its special features, should be figured separately. For the main hospital alone the amount expended for maintenance was \$322,578.09, which, divided by the daily average number of patients, 1,283.64, makes the gross weekly per capita cost \$4.83.

The expense of maintenance for the coming year is estimated at \$383,666 for the main hospital and \$111,658 for the psychopathic department, or \$495,324 altogether.

VISITS.

Official visits were received from the legislative committee on public charitable institutions, the State Board of Insanity, the Commission on Economy and Efficiency, the Auditor of the Commonwealth, and from agents and representatives of these departments of the State government. Other visitors included members of the Illinois State Board of Administration, and physicians, administrators and architects from this and other States.

A meeting of the Norfolk District Medical Society was held at the hospital in October, which was attended by more than one hundred physicians of the neighborhood.

ENTERTAINMENTS, RELIGIOUS SERVICES AND ACKNOWLEDGMENTS.

The following entertainments were provided for the patients: —

F. O. Harrell, legerdemain.
Christmas concert by pupils of Stephen Townsend.
Concert by members of St. Leo's choir.
Music by Mrs. Olive W. Hilton.
S. R. Vinton, illustrated lecture on India.
Entertainment by Dorchester Woman's Club.
Concert by Mr. William McDevitt and friends.
Juvenile Entertainers, under Mrs. Alice L. Glover.
W. A. Coles, blind entertainer.
Concert by Hospital Music Association.

In addition to the above, there were fortnightly dances from October to May.

Religious services were held regularly at the hospital, and the wards visited, by the same clergymen who have served us in the past, — Rev. Edward A. Gallagher, Rev. Andrew L. Bixler, and Rev. Moses L. Sedar, for the Catholic, Protestant and Jewish patients, respectively.

Grateful acknowledgment is made for contributions and service to these friends of the institution: —

Church of our Savior Branch of Church Periodical Club, magazines.
Mrs. S. J. Davis, Stoneham, magazines.
Mrs. C. S. Merrill, Dorchester, magazines.
Mrs. Woolsey Hopkins, magazines, clothing, etc.
Cheerful Letter Committee, Needham, scrap books and cards.
Mrs. Grace B. Potter, Brookline, magazines and periodicals.
Mrs. E. C. Jernegan, Roxbury, magazines and periodicals.
Mrs. Helen F. Lapworth, Dorchester, illustrated magazines.
Miss E. F. Luther, Milton, magazines.
Mrs. Jane Burke, Brookline, two canaries.
Dr. Walter Channing, piano, also contribution for Fourth of July music.
Entertainments: Dorchester Woman's Club, Mr. William McDevitt and friends, and Hospital Music Association.

To the medical and administrative officers, heads of departments and loyal employees in every branch of the service I am glad to give credit and thanks for valued assistance; and my obligations to the trustees for advice and support are continued and increased.

Respectfully,

HENRY P. FROST,

Superintendent.

Nov. 30. 1914.

REPORT
OF THE
DIRECTOR OF THE PSYCHOPATHIC DEPARTMENT
OF THE
BOSTON STATE HOSPITAL.

To the Trustees of the Boston State Hospital.

I beg to submit herewith my third annual report as director of the psychopathic department of the Boston State Hospital.

In this report I shall take up under I, statistical features; II, problems of hospital management; III, medical and scientific problems of the year; IV, social problems, especially in the out-patient department; V, general and medical educational activities (conferences, medical clinics, social clinics); VI, lectures and publications; VII, acknowledgments.

I. STATISTICS.

The psychopathic hospital operates 110 beds, so that the population may remain approximately 100 and still provide for emergencies. The daily average during the medical year 1914 was 88. The number of patients in the hospital Oct. 1, 1914, was 88; Sept. 30, 1913, the number was 91.

The total admissions numbered 1,921, making a daily average intake of a little over 5 cases. Of these 1,921 cases, 68 were second or third admissions during the year, so that the total number of different persons admitted was 1,853.

These 1,921 cases were distributed among different forms of commitment as follows: —

Temporary care (chapter 395, Acts of 1911),	1,028
Boston police (chapter 307, Acts of 1910),	436
Voluntary,	376
Observation (section 43, Revised Laws),	33
Pending examination and hearing (section 34, Revised Laws), .	18
Emergency (section 42, Revised Laws),	25
Commitment Superior Court (section 103),	5

Of these admissions, 711 became regular court commitments later (326 to the Boston State Hospital).

The native-born (1,038) were found to exceed in numbers the foreign-born (793).

The average age on admission was 38.66.

Of the discharges, 439 were discharged not recovered, 473 not insane, 112 recovered, 40 dead.

I shall not go fully into the matter of clinical diagnosis in the department's cases, reserving this for special studies and a determination of the error in diagnosis in the different groups. To correspond, however, with a table presented on page 63 of the 1912 report of the Boston State Hospital, I present a table embodying diagnosis in a group which we term for convenience the "temporary" care group, which includes cases admitted under chapter 395, Acts of 1911; chapter 307, Acts of 1910; sections 43 and 34, chapter 504, Acts of 1909.

Temporary Care Statistics for the Year.

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1913,	17	7	24
Admissions from Oct. 1, 1913, to Sept. 30, 1914, . . .	815	726	1,541
Viz.: chapter 504, Acts of 1909, section 34,	11	7	18
chapter 504, Acts of 1909, section 43,	18	15	33
chapter 504, Acts of 1909, section 42,	9	16	25
chapter 307, Acts of 1910,	280	156	436
chapter 395, Acts of 1911,	497	531	1,028
chapter 504, Acts of 1909, section 103,	—	1 ¹	1
Whole number of cases within the year,	832	733	1,565
Discharges from Oct. 1, 1913, to Sept. 30, 1914, . . .	817	715	1,532 ²
Viz.: recovered,	67	11	78
improved,	36	28	64
unimproved,	95	81	176
died,	10	12	22
not insane,	125	108	233
voluntary to Tewksbury State Hospital,	1	—	1
voluntary to Foxborough State Hospital,	1	—	1
voluntary to Boston State Hospital,	102	118	220
committed to Boston State Hospital,	144	182	326
committed to Danvers State Hospital,	21	31	52
committed to Worcester State Hospital,	79	41	120
committed to Westborough State Hospital,	35	36	71
committed to Taunton State Hospital,	74	46	120
committed to Monson State Hospital,	5	4	9
committed to McLean Hospital,	5	1	6
committed to Northampton State Hospital,	1	—	1
committed to Foxborough State Hospital,	1	—	1
committed to Newton Nervine,	—	3	3
committed to Ring's Sanatorium,	1	—	1
committed to Highland Hall Sanitarium,	—	1	1
returned to main hospital,	2	4	6
returned to Taunton State Hospital,	2	3	5
returned to Medfield State Asylum,	3	—	3
returned to Worcester State Hospital,	4	2	6
returned to Westborough State Hospital,	—	2	2
returned to Worcester Asylum,	3	1	4
Patients remaining Oct. 1, 1914,	15	18	33
Daily average of temporary care cases,	17.16	14.44	31.60

¹ Admitted incorrectly as a temporary care case.² Of the discharges, 22 males and 12 females were discharged to the Immigration Department.

Provisional Diagnosis in Temporary Care Cases.

	Males.	Females.	Totals.
Alcoholic psychoses: —			
Delirium tremens,	78	26	104
Korsakow's disease,	8	7	15
Acute hallucinosis,	35	16	51
Alcoholism,	32	7	39
Morphinism and other drug psychoses,	2	6	8
Senile psychoses,	28	49	77
Dementia præcox,	158	198	356
Paraphrenia systematica,	2	4	6
Manic-depressive psychoses: —			
Excitement,	49	62	111
Depression,	17	60	77
General paresis,	68	11	79
Cerebral syphilis,	9	7	16
Friedreich's ataxia,	—	1	1
Cerebral hemorrhage,	1	—	1
Epileptic psychoses,	14	11	25
Arteriosclerotic brain disease,	29	14	43
Imbecility,	6	2	8
Chorea,	—	2	2
Symptomatic psychoses: —			
Multiple sclerosis,	3	1	4
Meningitis,	—	1	1
Cardiorenal,	1	1	2
Uremia,	3	—	3
Fractured skull,	1	—	1
Exophthalmic goitre,	—	3	3
Encephalitis,	1	—	1
Traumatic psychosis,	1	—	1
Infective exhaustive psychoses,	—	4	4
Delirium,	2	2	4
Not insane,	170	151	321
Unclassified,	97	80	177
Totals,	815	726	1,541

Table to show Forms of Mental Disease in Voluntary Admissions.

	Males.	Females.	Totals.
Alcoholic psychoses: —			
Delirium tremens,	22	3	25
Acute hallucinosis,	9	2	11
Chronic alcoholism,	6	1	7
Alcoholic deterioration,	—	1	1
Alcoholic pseudoparesis,	1	—	1
Alcoholic epilepsy,	1	—	1
Dementia præcox,	55	45	100
Dementia simplex,	—	1	1
Paraphrenia systematica,	1	—	1
Paraphrenia,	1	—	1
Manic-depressive psychoses: —			
Excitement,	4	5	9
Depression,	9	22	31
Mixed,	—	1	1
Cyclothymic,	1	—	1
Involution melancholia,	—	10	10
Senile psychoses,	7	5	12
Presenile dementia,	—	3	3
Arteriosclerosis,	2	5	7
General paresis,	19	5	24
Tabo-paresis,	3	—	3
Paralysis agitans,	1	—	1
Tabes and alcohol,	1	—	1
Juvenile paresis,	1	—	1
Cerebral syphilis,	6	1	7
Organic specific,	1	—	1
Congenital syphilis,	1	—	1
Cerebral tumor,	—	1	1
Epilepsy,	2	2	4
Epilepsy dementia,	—	2	2
Morphinism,	—	2	2
Drug psychosis plus alcohol,	—	1	1
Huntington's chorea,	2	—	2
Traumatic psychosis,	—	1	1
Tubercular meningitis,	1	—	1
Multiple sclerosis,	1	—	1

*Table to show Forms of Mental Disease in Voluntary Admissions —
Concluded.*

	Males.	Females.	Totals.
Hystero-epilepsy,	1	-	1
Infective exhaustive psychosis,	-	1	1
Not insane,	121	133	254
Moron,	2	-	2
Psychasthenia,	2	-	2
Unclassified,	31	22	53
Organic dementia,	2	-	2
	317	275	592

II. PROBLEMS OF HOSPITAL MANAGEMENT.

Some progress has been made in working out the principles of psychopathic hospital management. The problem of handling in 110 beds about 2,000 patients in a year (1,921 in the statistical year 1914) is large and complex. The problem is not a crystallization of years, as is the problem of handling a quarter as many new cases and assimilating them to a fairly stable population of a thousand or more custodial patients such as we find in the long-established State institutions. Accordingly, our officers have embraced every opportunity of visit and interview which promised new light. Curiously enough, we have obtained as much information from the general hospital group of workers as from the insane hospital group. Discussion has been of especial value in respect to the treatment of delirium and excitement (see section III. of this report), to which we have devoted especial attention. I feel especially indebted, outside Boston, to Dr. Winford H. Smith, superintendent of the Johns Hopkins Hospital, Baltimore, for suggestions drawn from the general hospital range, suggestions of the more value because of the existence of the Phipps psychiatric clinic as an integral part of the Johns Hopkins Hospital. On the medical side I should mention the numerous visits of Dr. George L. Walton, who has helped us effectively in many cases of difficult diagnosis.

The geographical isolation of the psychopathic hospital from the main departments of the Boston State Hospital has compelled its operation with virtual independence of the main departments, so that in point of fact only the laundry and a few commissarial and transportation arrangements are maintained in common. If our experience should be sought by authorities elsewhere in the State as to the kind of psychopathic hospital unit which should be constructed to serve non-metropolitan areas in Massachusetts, I should hesitate to make recommendations without learning first whether the phrase "psychopathic hospital unit" is meant to cover (1) a "reception ward" of modern type, or (2) the more specialized "observation ward," in which not merely first care but continued elaborate study are to be afforded, or (3) the completely equipped modern "psychopathic hospital" combining all the features of a reception ward, an observation ward and a research institute.

The psychopathic hospital of present tendency is an institution ready to attack, within its means, all the problems of psychopathology, both social and individual, both intramural and extramural, both functional and structural, both practical and theoretical, having in mind both the patient of the day and the patient of the future. Accordingly, no established State institution should attempt to lower the standard of the psychopathic hospital by simply entitling a new reception unit "psychopathic." Unless such unit is so devised and operated as to attract and hold the "voluntary" and "temporary care" groups of patients and to secure the co-operation of general hospital officers, general practitioners, probation officers, social workers, school authorities and the courts, the so-called "psychopathic hospital unit" will not succeed. It is all very well to bring up custodial standards by the installation of laboratories and special apparatus; it is not well to lower the psychopathic hospital ideal by naming ordinary modern receiving units "psychopathic."

I propose in what follows to present such new experience in 1914 as may render the constitution of a modern psychopathic hospital clearer to the authorities and the public than was possible in last year's report.

In section I., I have listed the distribution of admissions according to the special laws under which patients were admitted. After April 25, 1913, the psychopathic hospital ceased to receive patients under the regular commitment law (sections 29 and 30, chapter 504, Acts of 1909, involving commitment by a justice on the basis of certificate by two qualified physicians). This decision by the State Board of Insanity marked an important precedent in the definition of the term "psychopathic," since the legally insane in the sense of sections 29 and 30 of the above chapter are thereby defined as not "psychopathic" cases. Of course, medically speaking, psychopathology and psychiatry form a science and art which deal not alone with such psychopaths as are not insane but also with those that are insane, as well as with the feeble-minded, possibly the epileptic, and even perhaps with certain alcoholic and delinquent cases.

Hence, by "psychopathic hospital unit," we in Massachusetts have come to mean a unit which gives "first care, examination, and observation" to "all classes of mental patients" (see annual report of State Board of Insanity, 1910, page 30) except to that class of patients which can and should be committed under the regular law.

This means that all our cases are or should be of questionable insanity (with certain reservations stated below) from the point of view of a judge of probate. We have had to discourage the employment of our hospital as a mere vestibule to the custodial institutions, a tendency somewhat easy for physicians to slide into under the operation of chapter 395, Acts of 1911 (the seven days' temporary care act). It has not been easy to put a stop to the practice of sending obviously committable cases into the State institutions by this route. To be sure, the text of the above-mentioned chapter 395 reads that the superintendent or manager "may" receive the appropriate patients; but, if any insane patient is brought to the admitting office, it is not easy to deny him admission on the ground of his not needing "temporary" care, simply because he needs permanent or prolonged care. The State Board of Insanity is now attempting to remedy this distortion of their own conception of the uses of our hospital by circular letters, stating to physicians the desirability of at once committing those persons who obviously need commitment.

I mentioned above certain exceptions to the rule that only supposedly noncommittable cases are fit subjects for the psychopathic hospital. Again referring to the State Board of Insanity's report for 1910, we find a further aim of the hospital to be the provision of *short, intensive treatment of incipient, acute and curable insanity*. This provision might be thought to include all classes of patients, both regularly committable cases and psychopathic subjects not regarded as committable. Such, in point of fact, was the interpretation of our function until the decision of the State Board of Insanity of April 25, 1913, above mentioned.

Such a general receptacle for all classes of cases our hospital remains, in so far as provided for under chapter 307, Acts of 1910, which chapter excepts only drunkenness and delirium tremens from the group of those arrested "persons suffering from delirium, mania, mental confusion, delusions or hallucinations" who "shall be taken for examination to the hospital," viz., to this hospital.

To investigate this matter of the incipient acute and curable cases, I have caused analyses to be made of successive hundreds of recoveries (two series are already published, one by the undersigned, one by Dr. T. H. Haines). About one case in five of these recoveries is a recovery in a nonalcoholic case. The majority of the alcoholic recoveries have been in a form of mental disease known as alcoholic hallucinosis, a more protracted and somewhat more dubious form of alcoholic mental disease than delirium tremens, and one not excepted (and properly so) from the functions of our hospital under the above-mentioned chapter 307. About one-ninth of our intake of patients is alcoholic, a majority under chapter 307.

The success of our treatment of alcoholic mental disease, even under structural conditions not intended specifically to meet the metropolitan demands of a hospital for delirium tremens, indicates that renewed effort should be made this year to obtain proper State care for acute alcoholism. The bill for such a hospital last year failed of passage through the Governor's veto.

The larger problem of nonalcoholic mental disease needs further consideration. It is the opinion of the undersigned

that the conclusions of the commission appointed under chapter 74, Acts of 1910, "a Resolve relative to a State Hospital for Cases of Nervous Breakdown," may some day need revision. The setting apart of structural arrangements suitable not merely for the psychopathic "not insane" (including so-called "nervous breakdown"), but also for cases genuinely thought to be convalescent though requiring longer treatment than the State can afford to give under psychopathic hospital conditions, is a policy to be calmly considered. It is not merely that the psychopathic hospital treatment would cost too much if it were protracted properly to meet the requirements of "breakdowns" and genuine convalescents, but rural conditions, cottage life, and approximation to home conditions may perhaps benefit a certain number of patients more than the specialized and intensive conditions of the psychopathic hospital.

So much may suffice for general comments on the classes of patients contemplated in the enabling act (chapter 470, Acts of 1909) and in the report of the State Board of Insanity, 1910. The enabling act also specified that in the hospital there should be accommodation for "treatment rooms and laboratories for scientific research as to the nature, causes and results of insanity." The problems of scientific research contemplated under the act would naturally be such as derive from patients, *i.e.*, would be clinical and clinicopathological problems of applied psychopathology and neuropathology, as distinct from the more fundamental problems which a university or research institute would undertake if funds were available.

For various purposes of these researches I wish to urge that a policy of easy transfer of patients to and from the psychopathic hospital be encouraged. This is the more to be urged because the insufficient appropriation requested for our first fractional year of operation (1912) did not permit the proper outfitting of the laboratories; since which period it has never proved possible to establish within the psychopathic hospital appropriation such laboratories for scientific research as were contemplated in the above-mentioned chapter 470. By consequence, recourse has been had to the resources of the State Board of Insanity, and within the year permission has been

granted to said Board to install an assistant pathologist in the psychopathic hospital building. The Statewide scope of the State Board's pathological service, the new plan of instruction for State hospital physicians to take place at the psychopathic hospital, the numerical bulk of its work, and the requests for its clinical service from various nonmetropolitan parts of the State are all factors looking to the extension of the hospital's general value in the State at large.

Through the free employment of internes and through the services of various assistant physicians from other State institutions, as well as to some extent from institutions in other States, we have been able to approach our ideals of thorough examination and diagnosis somewhat more closely than we could, were we limited to properly paid assistants. We must thank the other institutions which have paid the salaries of assistants while they were working with us; without such service we must often have reduced our work to a routine hardly superior to that of a chronically undermanned State institution. This is another link which binds us to the other parts of the State system.

I am often asked how the institution can afford to lose its higher as well as its lower officers so rapidly. Only the chief of staff, Dr. H. M. Adler, and the director remain of the original staff of June, 1912. During the past year, for example, three physicians of first assistant physician rank left service within three months, Dr. A. W. Stearns to serve with the State Board of Insanity, Dr. F. E. Williams to be secretary of the Massachusetts Society for Mental Hygiene, and Dr. T. H. Haines to be director of the Juvenile Research Bureau of the State of Ohio, and each man left service to receive more than twice as much salary as with us. Here is a problem of hospital management of unusual difficulty. It is solved in part only by the maintenance of reliable lay aid in the office and on the wards in such wise that routine does not easily degenerate.

In this connection I cannot too highly commend the various efficiency devices which have been with sure instinct planned and installed by the chief of staff, Dr. H. M. Adler, aided of late by the executive assistant, Dr. Anna C. Wellington. Worthy of record are the following:—

1. The *officer-of-the-day system*, by which in rotation experienced officers are made responsible for the running of all intramural affairs of the medical service, being in command of all other officers in contact with patients, as well as nurses and attendants, and seeing in a special office all persons desiring official medical opinions concerning the progress of cases in the hospital. To aid the officer of the day, various devices to assist the memory are used.

2. The *executive assistant* is responsible for the extraordinarily varied extramural problems of the hospital, providing in case of absence a substitute from among the experienced officers. The executive assistant attends to admissions, discharges, changes of status, commitments, advice to outside physicians as to appropriate procedures, and information sought by the State Board's office.

3. The system of *responsibility for the individual patient* on the part of the physician originally assigned to the patient. It can readily be seen, where the condition of the acutely sick patient changes rapidly from day to day and even from hour to hour, requiring shifts to and fro in admitting ward, disturbed ward or quiet ward; perhaps packs, baths, rest room; laboratory or operating room for diagnosis or treatment; staff meeting, roof garden, social hour, etc., — that it would be idle or disastrous to make one physician responsible for the complexion of a single structural unit. But, if the physician responsible for a given patient is following his treatment entirely through, the management of the case is not only better but simpler, and some kind of connected history of the patient's life in hospital is made available. If, however, a patient is for any reason neglected, the condition speedily attracts the attention of the officer of the day, and the system of management gets tightened forthwith.

4. The *training of assistant physicians* is secured by (a) the officer-of-the-day system, which gives them control for a day of the complicated problems of a hospital of 110 beds and yields accordingly all the advantages of what corresponds to a ward service in an institution for committed cases, and (b) the system of continued individual responsibility for patients in a variety of environments within the hospital.

5. *Morning staff rounds*, 8 to 9 A.M., or longer. In addition to the experience gained by the assistant physician with his individual charges, in his rotational service as officer of the day, and his occasional substitute work as executive assistant, the routine of the hospital secures observation on the morning staff rounds of all cases that present any special features, all new cases, and all physically sick cases, under the eyes of the chief of staff. Experience indicates that important medical, legal or social problems arise in at least half our cases daily.

6. *Noonday staff meetings*, 12 M. to 1 P.M. Whereas the routine problems present themselves on the staff rounds, the refractory special problems of the "unclassified" or unclassifiable come up at the daily staff meetings. Between 300 and 400 unusual and difficult cases get consideration here, as often as possible in the presence of the director.

So much will suffice to give some hint of the administrative complications which face our officers. The chief of staff, Dr. H. M. Adler, is preparing a systematic paper on the topic of the internal administration of psychopathic hospitals, which will doubtless fill a gap in the literature of hospital administration. As stated last year, we have gained much from experience and observation in general and insane hospitals abroad, but we have not found in print any accurate statements concerning these problems. An approach to this ideal is, however, found in Dannemann's account of the operation of Sommer's clinic in Giessen. Last year I stated that "it is safe to say that some important aspect of each case is dealt with by sixteen brains, over half of which belong to medically trained persons." Our experience during the past year has upheld or enlarged this estimate.

We have held to the ideal of the highest possible individualization in our treatment. It might be supposed that there would be a considerable sacrifice of individuality and of personal *rapport* in the treatment. Without further comment, I will point to the extraordinarily high percentage of patients returning voluntarily to the hospital out-patient department after they are discharged into extramural life. It is not merely that patients are coming with an increased degree of willingness to a hospital of which they know nothing but think great things,

but it transpires that they come back to the hospital even still more willingly. Thus we have repeatedly had the experience of hallucinated patients who return in subsequent attacks at an earlier point in the development of the hallucinations and during a phase in which internment in a hospital is of immediate service.

I have referred in a number of publications to the operation of the temporary care act and the law governing voluntary admissions (see particularly Psychopathic Hospital Contributions No. 52 (1914.18) and State Board of Insanity Contributions No. 22 (1914.2)) and of the operation of chapter 307, Acts of 1910, the Boston police act (see especially Psychopathic Hospital Contributions No. 34 (1913.34)).

I have to report the suicide of a patient, by shooting, immediately after her admission to the hospital, to which she had been brought from a police station under authority of chapter 307, Acts of 1910. She was brought without papers or written statement (no statement is required under the law), and although the police had had her under observation for more than an hour and regarded her as probably insane, it remains a matter of regret that they did not discover that the patient's handbag contained a freshly purchased revolver. The patient removed the revolver from her bag in the presence of a nurse while preparations were being made for her entrance bath.

Important work has also been done under various laws permitting special observations at the suggestion of judges (see tabulation under I. Statistics).

Special reports for the Industrial Accident Board, for the immigration service, and for schools, form another branch of activity.

Last year I spoke of the problem of nursing as one of our most serious problems and endeavored to distinguish between what may be called negative or "vigilance" nursing and the more positive or constructive nursing, which has the medical benefit of the patient in mind. For our more mature views in this direction I will refer to comments in V. Educational Activities. It is a matter of history with us that the endeavor to establish general hospital standards of nursing in our hospital

led to a considerable divergence of opinion between certain attendants, without general hospital training, who had been employed in the latter months of 1913, and the medical and nursing management. Some of the recalcitrant nurses were of a moderate skill in their work, laboring as they did under the disadvantage of not having had the general hospital course. Others were of little or no value to the hospital and some of positive harm. The endeavor to establish a higher grade of nursing in the psychopathic hospital led in January, 1914, to wholesale discharges and unregretted resignations. The well-nigh heroic efforts of the superintendent of nurses, Miss Mary L. Gerrin, at this time need special words of commendation.

After the establishment of the new régime, the wards became much better managed, and a good spirit was forthwith obtained, with a diminution in the number of accidents which might have been expected. As against 68 accidents recorded during the statistical year 1913, there were 57 recorded in the statistical year 1914, of which 21 occurred in the first stormy quarter of the statistical year. Whatever may be the proper policy for our institutions of chiefly custodial type with numerous chronic cases to act as "workers," I believe that our experience proves beyond cavil that a high type of constructive nursing in a situation like that at the psychopathic hospital must be performed by nurses having general hospital training, or having somehow attained its equivalent. It must be our task of the coming year to establish this fact still further by concrete work in connection with a training school, — preferably a post-graduate training school for the graduates of general hospital training schools.

The picture of nursing work during a week is to some extent conveyed by the following table:—

Cleansing baths,	500
Hydriatric room, special baths,	190
Prolonged baths:—	
Male acute ward, daytime,	19
Male acute ward, night,	10
Female acute ward, daytime,	15
Female acute ward, night,	—

Packs: —

Male acute ward, daytime,	2
Male acute ward, night,	1
Female acute ward, daytime,	—
Female acute ward, night,	—

Operating room: —

Serum withdrawn,	31
Lumbar puncture,	7
Dressings,	9
Gynecological examinations,	16

In my report for 1912 I presented a small study showing time spent by nurses and attendants in the pursuit of their various duties. I will place in a table the comparative figures for 1912 and 1914, as follows: —

	HOURS.	
	1912.	1914.
Nursing duties,	24	35
Domestic duties,	23	15
Executive duties,	12	11

It thus appears that we have been able to abbreviate the executive duties, although very slightly, and that the domestic duties have been greatly diminished to the corresponding advantage of the nursing duties.

Much attention has been paid to the methods of receiving relatives and friends in the office. A special blank form has been printed by which to enlighten physicians using the provisions of chapter 395, Acts of 1911, as to their privileges and duties.

III. MEDICAL AND SCIENTIFIC PROBLEMS OF THE YEAR.

The publications listed in section VII. indicate the tendencies of our work. The work which is nearest to completion is that of Prof. R. M. Yerkes on the new point scale for intelligence and other mental tests. The application of these tests has been practiced in hundreds of out-patient and house cases in

the psychopathic hospital, and its advantage over the Binet tests seems to be unquestioned. The work is promised to appear in book form early in 1915. A large number of voluntary lay and medical workers have embraced the opportunity of working with the new point scale under Professor Yerkes, Mr. Bridges and other assistants.

The work of last year upon the treatment of delirium and excitements has continued, and the important correlations between the appearance of cyanosis and the approach of excitement, as observed by Dr. Adler, are to form the topic of extended consideration. Our material and results are so good in the field of the deliria that it would seem wise for us to continue to place our best energies in this direction, the more so as any contribution to this practically most perturbing problem will be of particular value in our training of nurses. I myself have endeavored to shape certain researches carried on under the State Board of Insanity so as to support Dr. Adler's work.

Another field of work is that of the psychoneuroses, in which field Dr. Gregg has drawn tentative conclusions which I wish to reproduce.

The conclusions drawn from this analysis of 100 cases of psychoneurosis are as follows: —

First. — In the majority if not in all cases of psychoneurosis, there exists an essential factor, viz., a natural psychopathic tendency, hereditary or acquired, in fetal life.

Second. — If the age at which symptoms occur among psychoneurotic individuals may be considered an index of the potency of the essential factor at work, luetic, insane, neurotic and alcoholic defects among forbears are of importance in the order named in the production of psychopathic tendencies.

Third. — Among psychoneurotic individuals somatic difficulties tend to induce symptoms earlier than do difficulties of environment.

Fourth. — The longer a psychoneurosis exists, the more numerous will the symptoms probably be.

Fifth. — Prophylaxis against the psychoneurosis can be furthered by early diagnosis, and by the elimination of the provocative agents of somatic and environmental difficulties with the aid of medical treatment, psychoanalysis and psychotherapy, but no prophylaxis can be effective that fails to consider the essential factors in the production of the psychoneuroses.

The important practical question with respect to the psychoneurotics is whether we need an institution for them. If psychoneurotics tend to become insane, such an institution might act as a preventorium. If there were not enough cases to warrant the establishment of such a preventorium by the State, it might be thought that genuinely convalescent cases from the institutions could properly be placed in such an institution. Remarks have been offered on this topic in section II. An important question lodges in whether rest or work is the treatment which will prove generally superior, or whether, as may be surmised, there are two groups of cases, — one needing rest, the other needing work.

Although hampered by lack of apparatus and assistants, Dr. Adler has carried out during the year two novel pieces of work in the medical chemistry of mental disease, — one upon "The Urea and Urea Nitrogen of the Blood and Cerebrospinal Fluid in 158 Cases of Insanity" (see Psychopathic Hospital Contributions No. 50 (1914.16)), and the other "On the Systematic Control of Salvarsan Therapy (see Psychopathic Hospital Contributions No. 62 (1914.28)). The latter piece of work has an important bearing on the question of choice of cases for arsenic treatment, since it shows that certain cases are far more liable to damage by successive doses than others, owing to the slowness with which they excrete arsenic from the blood.

Dr. Myerson, now clinical director and pathologist at Taunton State Hospital, has continued his work with the reflexes, upon the cerebrospinal fluid, and upon the Swift-Ellis treatment in general paresis (see Psychopathic Hospital Contributions Nos. 35, 36, 40 (1914.1), (1914.2) and (1914.6)).

A novel line of our work has been carried out by an interne, Mr. Grabfield, with a test proposed by Prof. E. G. Martin of the Harvard Medical School, for determining the threshold of sensibility to Faradism. The test seems likely to prove of value in determining the rate of recovery in alcoholic cases as well as in a variety of other directions.

Dr. Solomon and Mr. Koefod have worked with the colloidal gold test in the cerebrospinal fluid, which test seems unconditionally to offer much finer diagnostic possibilities than tests hitherto available. This test was proposed by Lange on the

basis of work of Zsigmondi. We are obliged to the laboratory of the Massachusetts General Hospital for the courtesy of giving us their experiences with this difficult test, also to the Peter Bent Brigham Hospital for kindly giving us certain fluids for comparative examinations. It now appears that other hospitals of the vicinity will take up this work as routine.

With Dr. Stearns, the director has made studies of "The Error in Diagnosis at the Psychopathic Hospital," finding that about one in five cases secures no diagnosis at the psychopathic hospital, and that of those cases that do secure a diagnosis, about one in four has its diagnosis altered upon removal to a State hospital. The most difficult field of diagnosis proves, as may be surmised, to be that of dementia præcox and manic-depressive insanity. These figures were obtained by considering the State hospital diagnosis as correct. Further studies in this direction will be made and will very probably tend to the standardization of diagnosis in the State hospital system.

IV. SOCIAL PROBLEMS, ESPECIALLY IN THE OUT-PATIENT DEPARTMENT.

The out-patient department has been managed as an integral part of the psychopathic hospital service to the great advantage of both. After Dr. Lucas' departure for California, the work was managed by Dr. A. W. Stearns until June 13, 1914, and thereafter devolved upon Dr. H. M. Adler. The clinic has increased numerically. As against 830 patients in the statistical year 1913, there have been 1,133 patients in the statistical year 1914. There have been nearly twice as many visits a month during the past year as in 1913. The increase has been in both sexes and in all classes as is shown in the table below. The volume of our work is indicated by the fact that no less than 338 special reports have been sent to social agencies and courts concerning cases.

I need not stress the importance of this work. Sixty-three of the 1,133 new cases were admitted to the house service for observation or treatment, but in the majority of cases the medico-social questions could be answered without resort to internment; 322 cases belonged in the after-care division of

mental hygiene. In connection with this after-care work, I wish to commend especially the Men's Club, meeting monthly, the idea of which was devised by Miss Jarrett, and which has been developed and expanded by Dr. Stearns. More recently it has been planned under Dr. Adler's supervision to develop the club a little more formally still and to try to make it a community engine of prophylaxis. The majority of the men are, naturally, alcoholics, and we secure from them untrammelled narratives, after their recovery, of points of the greatest value in securing the patient's point of view as to methods of treatment in the hospital.

The extramural work of the hospital comes to a head in the out-patient department. It seems likely that this department will need progressively more funds as the years pass. It seems now as if there should be not merely a clinical historian but a person to act as a manager of the clinic during its operation day by day, taking charge of the various inquiries from social agencies, courts and physicians.

Follow-up statistics are available for ten and one-half months, serving as an efficiency study of our work. Since more than three-fourths of the patients due to arrive in the out-patient department come upon their own initiative (viz., 3,339 out of 4,046), it is clear that the institution is at least not a repelling force to the patients. About four-fifths of the out-patients have returned without reminder.

Out-patient Department, Sept. 30, 1913, to Oct. 1, 1914.

Age and sex: —

Adult males,	330
Adult females,	292
Adolescent males (fourteen to twenty-one years),	104
Adolescent females (twelve to eighteen years),	139
Boys,	178
Girls,	83
Infants (male),	5
Infants (female),	2

Total, 1,133

Reason for coming: —

Question of insanity,	62
Question of mental deficiency,	297
Psychoneurosis,	103
Alcoholism,	23
Sex offence,	39
Juvenile delinquency,	46
Truancy,	9
Speech defect,	56
After-care: —	
(a) House,	320
(b) Other hospitals,	2
All other cases,	177

Total, 1,133

Admitted to house, 63

Problems presented: —

Financial,	1
Home or institution,	393
Delinquency or insanity,	32
Special training,	28
Purely medical,	65
Not specific,	614

Total, 1,133

Classification according to source: —

Public agencies: —

Courts,	65
Schools,	66

Hospitals: —

Physicians,	161
Social service departments,	27

Charities: —

Public,	18
Private,	279

Individuals: —

Physicians,	80
Miscellaneous,	26
Own initiative,	91
House cases,	320

Total, 1,133

Classification according to diagnosis — *Continued.*

Cerebral syphilis,	2
Cerebral tumor,	1
Chorea,	4
Congenital syphilis,	6
Defective,	5
Defective delinquent,	12
Defective plus question of epilepsy,	1
Deferred,	250
Dementia præcox,	51
Dementia præcox (paranoid),	1
Delirium tremens,	29
Delinquent,	27
Deltoid bursitis,	1
Drug,	1
Epilepsy,	21
Feeble-minded,	149
Feeble-minded plus epilepsy,	2
Feeble-minded (spastic paraplegia),	1
Fractured skull,	1
General paralysis,	2
General paralysis of the insane,	2
General paresis,	1
General paresis (early stage),	1
Hyperpituitarism,	1
Hyperthyroidism,	7
Hysteria,	13
Hysteria or feeble-minded,	1
Imbecile,	2
Involitional psychosis,	3
Juvenile paresis,	1
Korsakow's disease,	1
Korsakow's psychosis,	1
Manic-depressive insanity,	18
Memory defect,	1
Memory defect plus blood poisoning,	1
Migraine,	1
Morphine hallucinosis,	2
Morphinism,	4
Moron,	6
Multiple sclerosis,	1
Neurasthenia,	15
Neurasthenia and mental defect,	1
No disease,	43
No mental disease,	82
Not diagnosed,	3
Not insane (chronic alcoholism),	1

Classification according to diagnosis — *Concluded.*

Organic dementia,	2
Paralysis agitans,	2
Paraphrenia,	2
Post-meningitis dementia,	1
Post-operative dementia,	1
Presenile dementia,	1
Presenility,	1
Psychasthenia,	17
Psychoneurosis,	47
Psychoneurosis and chorea minor,	1
Psychoneurosis-gastroptosis,	1
Psychoneurosis plus question of mental defect,	1
Psychoneurosis plus question of psychosis,	1
Psychopathic personality,	3
Question of beginning psychosis,	3
Question of arteriosclerosis,	2
Question of congenital disease of cerebral vessels,	1
Question of congenital syphilis,	6
Question of dementia præcox,	3
Question of epilepsy,	1
Question of general paralysis of the insane,	1
Question of general paresis,	1
Question of hyperthyroidism,	1
Question of juvenile psychosis,	1
Question of paranoid condition,	1
Question of psychosis,	3
Question of syphilis,	4
Retarded,	7
Senile dementia,	1
Sexual psychoneurosis,	2
Spastic diplegia or cretin,	1
Speech defect,	59
Subnormal,	42
Syphilis,	28
Tabes,	1
Toxic delirium,	1
Unclassified,	14
Unclassified mental defect,	1
Unclassified psychosis,	10
Anæmia,	1
Insomnia,	1
Total,	1,133

Reports sent out, 338

V. GENERAL AND MEDICAL EDUCATIONAL ACTIVITIES (CONFERENCES), MEDICAL CLINICS, SOCIAL CLINICS.

The ideals of the State Board of Insanity, as developed in their annual report for 1910, naturally cannot be entirely met without the expenditure of more money than has been available.

The activities of last year have continued, and there has been a fair attendance upon the weekly medical clinics designed for permitting practitioners to observe modern methods of diagnosis. There has been a remarkably good attendance at the social clinics, inasmuch as frequently forty or more such workers have attended the clinics.

Interest in the daily conference at noon has also continued, and the Harvard and Tufts medical schools have availed themselves of the opportunities of teaching.

An important step in the training of physicians for State service was taken by the State Board in August, 1914. The State Board of Insanity then voted that they would approve of no appointment to the staff of any hospital unless the appointee had had previous experience or taken special courses along the lines of hospital work.

In September, 1914, the trustees of the Boston State Hospital voted to approve suggestions of the State Board of Insanity relative to admitting at the psychopathic department urgent or selected cases from any part of the State, subject to the approval of the director and the State Board of Insanity; and the plan proposed for giving a course of instructions to candidates for position of assistant physician at any of the State hospitals when desired. The training course may be described as follows:—

TRAINING COURSE FOR THE STATE HOSPITAL SERVICE, STATE BOARD OF INSANITY, MASSACHUSETTS.

The training courses will for the present begin on the first week days of successive quarters, October, January, April and July, as well as at such irregular times as may be arranged at the psychopathic hospital.

Courses of briefer or longer duration may be arranged to fit the previous training of candidates.

Certificates of proficiency will be issued to those meeting requirements.

Special arrangements will be made for candidates for positions as pathologists, clinical directorates and other special positions, as well as for supplementing the training of those already in the State service.

Special periods, six of a fortnight: —

First Period. — Admission of patients under direction; laws of the Commonwealth touching insanity; ward notes on assigned patients; night service as assigned.

Second Period. — Admission of patients; clinical history-taking, house and out-patient service; intelligence tests (Binet-Simon, Yerkes, etc.); general mental examinations.

Third Period. — Ophthalmoscopic work; clinicopathological work (blood, urine, feces, stomach contents, etc.); blood pressure; physiological tests (electric sensibility, etc.).

Fourth Period. — Methods of laboratory diagnosis of organic disease; method of obtaining serum and cerebrospinal fluid; principles of Wassermann method, colloidal gold test, etc.; cytology of cerebrospinal fluid. (The laboratory instruction will be given with a view to its value in routine hospital work.)

Fifth and Sixth Periods. — Regular staff work.

The candidates for positions of assistant physicians will be termed internes, and will be lodged and boarded free at the psychopathic hospital, so far as accommodations permit.

The director of the psychopathic hospital may, with the consent and approval of the Board, terminate a candidate's training at any point.

ADVANCED COURSE FOR PARTLY TRAINED PHYSICIANS.

General. — Attendance at daily staff rounds, 8 to 9 A.M.; attendance at daily clinical conferences, 12 M. to 1 P.M.; attendance at weekly welfare conference.

Out-patient Department. — Attendance at autopsies; library work and journal reviewing, as assigned; notes on work of rounds, conferences and other exercises, as assigned.

As for the training of nurses, I feel that this matter is no less important, and I had occasion to state conclusions in this direction in my paper, *Psychopathic Hospital Contributions* No. 48 (1914.14), wherein I showed the large number of general hospital nursing problems which we face. I therein advocated a higher type of insane hospital nurse than the attendant type which we now have, — a type which may be called the "psychopathic hospital type," and concluded as follows: —

I should be in general accord with those who believe in grading, or in developing, a stratified nursing force, having at the bottom persons of a custodial type corresponding to the orderlies of general hospitals, and above them a stratum composed chiefly of women of a higher grade. I should, of course, encourage persons in the orderly or maid servant group to endeavor to rise to the higher or training school grade, but I should be inclined to give up the idea of putting "round pegs in square holes" by insisting on persons of all grades of intelligence going through the same training school. This can but pull down the general average of the training school.

As to the training school itself for State hospitals, I should advocate the inclusion of more features recalling those of general hospitals. I should like to have more insistence laid upon the part played by physicians in lecturing and giving practical demonstrations to nurses. In some general hospitals it has been the custom to pay physicians extra for their work in lecturing and demonstrating, — this secures better work. In Massachusetts, however, this plan could not be adopted, but an increase of salary could be granted to persons desirous of spending extra time in this manner.

Above the two grades just mentioned, I should like to see developed a higher grade of nurses for the insane. The new type of nurse might be termed briefly the psychopathic hospital type. The grade should be founded upon a course pursued subsequent to the general hospital course. The proper length of such a post-graduate nursing course is a matter of doubt but might provisionally be placed at six months. A certificate or diploma should be granted for this work.

The salary for persons taking this course should naturally be low, perhaps merely enough to cover the cost of uniforms, etc., but the course should be so elaborate, well-conceived and attractive that there would be no difficulty in securing graduates of general hospitals to take the course. Indeed, I should say that any course proposed to be of this type which should fail to secure an adequate supply of general hospital graduate nurses would have to be marked down as a failure.

To develop this grade of nurse, it would be necessary to give general hospital graduate nurses as good food and living conditions as they have been accustomed to in general hospitals. This would mean placing them in more special quarters, and giving them more dignity than is at present accorded nurses and attendants in most of our State hospitals for the insane.

Similar ideas were developed in the contributions of our nursing conference contributions Nos. 44 to 49 (1914.10 to 1914.15) listed in section VII.

As for the training of investigators and special workers mentioned in the above extract from the State Board of Insanity report for 1910, I would say that the development of the psychopathic hospital as a center of education for these will depend upon the appropriation of money to this end. The aim has been partially met by the work under the State Board's investigation fund, so far as it uses the psychopathic hospital as a center. Special funds would be necessary to develop properly the special work on the side of social service.

VI. LECTURES AND PUBLICATIONS.

The titles of lectures and contributions of the psychopathic hospital are as follows: —

Feb. 16, 1914. — A conference on modern developments in mental nursing.

Program.

- I. Introduction by Walter Channing, chairman, trustees, Boston State Hospital.
- II. "The Ideal Training of the Mental Nurse." Miss M. Adelaide Nutting, director, department of health and nursing, Teachers College, New York.
- III. "An Analysis of the First One Hundred Recoveries at the Psychopathic Hospital." E. E. Southard, M.D., director of the Psychopathic Hospital.
- IV. "First Impressions of a General Hospital Nurse on beginning Work at the Psychopathic Hospital." Miss Mary L. Gerrin, superintendent of nurses.
- V. "A Comparison of Drugs used in General and Mental Hospitals." Donald Gregg, M.D., assistant physician, out-patient service, Psychopathic Hospital.
- VI. "Constructive Mental Nursing." Herman M. Adler, M.D., chief of staff, Psychopathic Hospital.
- VII. "On the Incidence of Bedsores in Thirteen Hundred Mental Cases." Myrtelle M. Canavan, M.D., pathologist, Boston State Hospital.
- VIII. "The Question of Diet for the Insane in the Light of the almost Constant Occurrence of Chronic Bright's Disease in Subjects dying Insane." Myrtelle M. Canavan, M.D., and E. E. Southard, M.D.
- IX. "The Art of Companionship in Mental Nursing." Henry R. Stedman, M.D., chairman, Board of Trustees, Taunton State Hospital.
- X. "The Factor of Influencibility in Voluntary Admissions at the Psychopathic Hospital." George E. Eversole, M.D., assistant physician, Psychopathic Hospital.
- XI. "The Problems of Mental Nursing from the Standpoint of the Medical Social Worker." Miss Ida M. Cannon, R.N., head worker, department of social service, Massachusetts General Hospital.
- XII. "The Male Nurse." George T. Tuttle, M.D., superintendent, McLean Hospital.

March 31, 1914. — Members of the psychopathic hospital staff presented the program of the Norfolk District Medical Society at the psychopathic hospital.

Program.

- I. Presentation of patients.
- II. Demonstration of charts.
- III. "Remarks on Mania." Dr. E. E. Southard.
- IV. "Analysis of the Second Hundred Recoveries at the Psychopathic Hospital." Dr. T. H. Haines.
- V. "The Incidence and Type of Hallucinations in 500 Cases of Mental Disease, with Remarks on their Differential Diagnostic Value in Dementia Præcox and Manic-depressive Insanity." Dr. A. W. Stearns.
- VI. "On the Influencibility of the Will in Voluntary Admissions." Dr. G. E. Eversole.
- VII. "Blood and Cerebrospinal Fluid Examinations at the Psychopathic Hospital." Dr. H. M. Adler.

April 28, 1914. — Members of the main hospital and the psychopathic hospital staffs presented the program of the Boston Society of Medical Sciences at the psychopathic hospital.

Program.

"Remarks on History of Boston State Hospital, 1839-1914." Dr. Henry P. Frost.

Report of a Paratyphoid Epidemic at Boston State Hospital: —

(a) "Clinical Aspects." Dr. M. E. Gill-Noble.

(b) "Laboratory Findings." Dr. M. M. Canavan.

"Conclusions." Dr. E. E. Southard.

"Data in Case of Multiple Sclerosis." Dr. J. I. Wiseman.

"Process of Cavitation in Syringomyelia." Mr. H. I. Gosline.

"Microscopic Findings in Seventeen Normal-looking Brains." Dr. M. M. Canavan and Dr. E. E. Southard.

"Demonstration of Specimens illustrating Lesions in Dementia Præcox and Optic Nerves in Insanity."

June 26, 1914. — A second annual conference on the medical and social work of the psychopathic department of the Boston State Hospital.

Program.

- I. Introductory remarks by Walter Channing, chairman, Board of Trustees, Boston State Hospital.
- II. "The Prophylactic Functions of the Psychopathic Hospital, with Special Reference to Admissions of the 'Not Insane.'" E. E. Southard, director.

- III. "The After-care Program and Results of the Psychopathic Hospital, Boston." A. Warren Stearns, first assistant physician, in charge of out-patients.
- IV. "Further Notes on the Economic Side of Psychopathic Social Service." Mary C. Jærrrett, director social service.
- V. "High-grade Mental Defectives in a Group of Adolescents studied at the Psychopathic Hospital." Thomas H. Haines, first assistant physician.
- VI. "Genetic Factors in One Hundred Cases of Psychoneurosis (Out-patient Department)." Donald Gregg, assistant physician, out-patient department.
- VII. "A New Point Scale for Measuring Mental Capacities." Robert M. Yerkes, psychologist.
- VIII. "Experience with the Martin Electric Threshold Test in Psychopathic Cases." G. P. Grabfield, interne.
- IX. "Experience with the Lange Colloidal Gold Test in Various Cerebrospinal Fluids." H. C. Solomon, interne.
- X. "Cases to illustrate Symptomatic Psychoses of Cardiorenal Type." Frankwood E. Williams, assistant physician.
- XI. "On the Margin of Error in Psychopathic Hospital Diagnoses." A. Warren Stearns and E. E. Southard.
- XII. "Points Concerning Salvarsan Therapy." H. M. Adler, chief of staff.

For convenience of social workers and physicians, the more social papers have been placed early and the more medical papers late on the program.

Oct. 14, 1914. — Members of the psychopathic hospital staff presented the program of the Middlesex East District Medical Society at the psychopathic hospital.

Program.

Introductory Remarks. E. E. Southard, director.

Functions of the Out-patient Department. H. M. Adler, chief of staff.

The New Mental Tests. Robert M. Yerkes, psychologist.

Demonstration Cases. Members of staff.

List of Psychopathic Hospital Contributions, 1914.

- 1914.1. A. Myerson. The Albumen Content of the Spinal Fluid in its Relation to Disease Syndromes. *Journal of Nervous and Mental Disease*, March, 1914.
- 1914.2. A. Myerson. Contralateral Periosteal Reflexes of the Arm. *Journal of Nervous and Mental Disease*, March, 1914.

- 1914.3. H. R. Stedman. The Art of Companionship in Mental Nursing. Boston Medical and Surgical Journal, April 30, 1914.
- 1914.4. E. E. Southard. Feeble-mindedness as a Leading Social Problem. Boston Medical and Surgical Journal, May 21, 1914.
- 1914.5. M. C. Jarrett. The Function of the Social Service in the Psychopathic Hospital, Boston. Boston Medical and Surgical Journal, June 25, 1914.
- 1914.6. A. Myerson. Results of the Swift-Ellis Treatment in General Paresis. Boston Medical and Surgical Journal, May 7, 1914.
- 1914.7. Donald Gregg. Treatment of Deliria in General and in Mental Hospitals. The Modern Hospital, May, 1914.
- 1914.8. E. E. Southard. The Mind Twist and Brain Spot Hypotheses in Psychopathology and Neuropathology. The Psychological Bulletin, April, 1914.
- 1914.9. W. B. Swift. A Voice Sign in Chorea. American Journal Diseases of Children, June, 1914.
- 1914.10. Walter Channing. Improved Nursing for the Mentally Ill. Boston Medical and Surgical Journal, Sept. 24, 1914.
- 1914.11. M. Adelaide Nutting. The Training of the Psychopathic Nurse. Boston Medical and Surgical Journal, Sept. 24, 1914.
- 1914.12. Donald Gregg. A Comparison of the Drugs used in General and Mental Hospitals. Boston Medical and Surgical Journal, Sept. 24, 1914.
- 1914.13. Charles W. Eliot. Remarks at Conference on Modern Developments in Mental Nursing, Feb. 16, 1914. Boston Medical and Surgical Journal, Sept. 24, 1914.
- 1914.14. E. E. Southard. Analysis of Recoveries at the Psychopathic Hospital, Boston: I. One Hundred Cases, 1912-1913, considered especially from the Standpoint of Nursing. Boston Medical and Surgical Journal, Sept. 24, 1914.
- 1914.15. Mary L. Gerrin. Impressions of a General Hospital Nurse beginning Work at the Psychopathic Hospital (Boston, Mass.). Boston Medical and Surgical Journal, Sept. 24, 1914.
- 1914.16. H. M. Adler. A Note on the Increase of Total Nitrogen and Urea Nitrogen in the Cerebrospinal Fluid in Certain Cases of Insanity, with Remarks on the Uric Acid Content of the Blood.
- 1914.17. Walter Channing. The Duty of the State to the Psychopathic Hospital. Boston Medical and Surgical Journal, Dec. 3, 1914.
- 1914.18. E. E. Southard. Progress of the Psychopathic Hospital on the Prophylactic Side of Mental Hygiene. Boston Medical and Surgical Journal, Dec. 3, 1914.
- 1914.19. A. Warren Stearns. The After-care Program and Results of the Psychopathic Hospital, Boston, 1913-14. Boston Medical and Surgical Journal, Dec. 3, 1914.
- 1914.20. M. C. Jarrett. Further Notes on the Economic Side of Psychopathic Social Service. Boston Medical and Surgical Journal, Dec. 3, 1914.

- 1914.21. Thomas H. Haines. High-grade Defectives at the Psychopathic Hospital during 1913. *Boston Medical and Surgical Journal*, Dec. 3, 1914.
- 1914.22. Donald Gregg. Genetic Factors in 100 Cases of Psychoneuroses. *Boston Medical and Surgical Journal*, Dec. 3, 1914.
- 1914.23. Robert M. Yerkes. The Point Scale: A New Method for Measuring Mental Capacity. *Boston Medical and Surgical Journal*, Dec. 3, 1914.
- 1914.24. G. P. Grabfield. Variations in the Sensory Threshold for Faradic Stimulation in Psychopathic Subjects: First Note, *Boston Medical and Surgical Journal*, Dec. 12, 1914.
- 1914.25. H. C. Solomon and H. O. Koefod. Experience with the Lange Colloidal Gold Test in 135 Cerebrospinal Fluids, *Boston Medical and Surgical Journal*, Dec. 12, 1914.
- 1914.26. Frankwood E. Williams. Cases to illustrate Symptomatic Psychoses of Cardioresenal Type, *Boston Medical and Surgical Journal*, Dec. 12, 1914.
- 1914.27. E. E. Southard and A. W. Stearns. The Margin of Error in Psychopathic Hospital Diagnoses, *Boston Medical and Surgical Journal*, Dec. 12, 1914.
- 1914.28. H. M. Adler. On the Systematic Control of Salvarsan Therapy based on the Rapidity of Arsenic Excretion, *Boston Medical and Surgical Journal*, Dec. 12, 1914.
- 1914.29. Thomas H. Haines. Analysis of Recoveries at the Psychopathic Hospital, Boston: II. A second Series of One Hundred Cases considered especially from the Standpoint of Psychopathic Nursing of Brief Manic-depressive Excitements and of Hysterical and Other Deliria, *Boston Medical and Surgical Journal*, Dec. 31, 1914.

NOTE.—The contributions for 1913, 34 in number, were issued in bound form in September, 1914.

VIII. ACKNOWLEDGMENTS.

I have the duty and pleasure of acknowledging numerous gifts to the hospital.

Dr. Charles P. Putnam kindly donated a set of the "Proceedings of the Society for Psychical Research."

Mr. Bartlett of A. J. Lloyd Company presented the hospital with 30 spectacle cases in which patients' glasses could be kept safe in the vault.

Dr. Dixwell arranged a concert, which was given March 15 and paid for from donations collected by him.

Miss Hunnewell sent flowers to the hospital from the funeral of Esther Prout.

Mrs. Van Voorhis contributed journals and magazines.

The Boston Public Library contributed magazines.

The University Club contributed a large lot of books and magazines.

Miss Green contributed a suit of clothes for a patient.

Flowers from the funeral of Mrs. Martha G. Cate were received June 3.

Mrs. Coy presented books and magazines.

Miss Mary S. Ames of North Easton contributed flowers during the summer.

Mr. Anderson of Simmons College contributed shoes.

Mr. Carrington Howard contributed a copy of "Science and Health."

Mrs. John B. Carter of West Newton donated games, also a bookcase and 21 books.

Shoes and clothing have been donated by Miss Sperry, Miss Newman and Miss Anderson, and the "Saturday Evening Post" for three years was donated by Mr. Wentworth.

Mrs. Matthew Hale and Miss Dorothy Hale have donated books.

Miss Rosamond Fay contributed books and magazines.

Books have also been received from Miss Margaret Faulkner, Cambridge, and from Miss Jarrett.

Dr. H. M. Adler and Dr. Anna C. Wellington at various times during the year have donated books and magazines for the patients' library, and Dr. Adler has contributed back files of "The Lancet" for the medical library.

We are also obliged to the Harvard Medical Library for the gift of various duplicates, both books and magazines, which have come into its hands.

E. E. SOUTHARD,

Director.

Nov. 30, 1914.

REPORT OF THE PATHOLOGIST.

To the Superintendent of the Boston State Hospital.

This is the fourth annual report of the work of the laboratory and covers that portion of the statistical year 1914 from Oct. 1, 1913, to July 1, 1914, upon which date the writer was transferred to the pathological service of the State Board of Insanity as assistant pathologist. Since that time there has been no officially appointed pathologist at the Boston State Hospital, although the writer has performed 20 autopsies there and has supervised in a general way the work of the technician.

The following is a list of the various routine clinicopathological examinations made:—

Pus,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	9
Blood cultures,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
Blood counts,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	59
Vaccine,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
Widals,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Cerebrospinal fluid,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	34
Throat cultures,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	45
Sputums,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	59
Urine analysis,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	576
Total,	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	796

There have been 79 autopsies during the year, the largest number yet performed in a year at this hospital. The percentage of autopsies to the death rate (185) was 42.7.

The routine of bacteriological and histological technique has been kept up as noted in former reports, including heart's blood, cerebrospinal fluid, and special cultures, Weigert and Marchi preparations for diagnosis of organic nervous diseases, and special work in the diagnosis of general paresis and other syphilitic conditions.

Special attention has been given to the peripheral nerves and the sympathetic nervous system. A study of optic nerve degenerations in nonselected cases has shown a very high percentage of degenerations (40 examples of degeneration in 58 cases).

An intensive study of the kidney in 100 nonselected cases has shown extremely high percentages of chronic disease (66 per cent. interstitial nephritis) and a fair proportion of acute disease (39 per cent.).

The report on the paratyphoid epidemic of 1910-11 has been finished by Dr. Gill-Noble and the writer.

Work on the relation of angular gyrus lesions to catatonic symptoms has been completed.

Co-operation with the State Board of Insanity has permitted the photographic study of numerous brains, and several reports are in progress on this work.

Mr. (now Dr.) H. I. Gosline completed an unusually elaborate anatomical and histological study of a case of syringomyelia, which was read at a meeting of the Boston Society of Medical Sciences, April 28, 1914.

A complete index of all lesions found in 200 consecutive cases has been made. An index of clinical symptoms was made in 159 cases.

Marked progress has been made upon the anatomical and histological analyses of normal-looking brains, and a report read at the above-mentioned meeting.

The usual lectures to nurses have been given, this year sixteen in number.

Monthly staff meetings have been held in the laboratory.

Thanks are due to the superintendent and the staff for their continued interest in securing autopsies and for a variety of courtesies.

Respectfully submitted,

MYRTELLE M. CANAVAN.

BOSTON, Sept. 30, 1914.

REPORT OF THE SOCIAL SERVICE DEPARTMENT.

To the Superintendent of the Boston State Hospital.

I herewith submit a report of the work of the social service department for the year from Dec. 1, 1913, to Nov. 30, 1914.

Number of cases referred,	271
Number of visits made,	922

Patients have been referred to this department for the following reasons: —

1. Supervision during trial visit.
2. Investigation of home, previous to discharge.
3. Provision for family.
4. For boarding out.
5. To look up escaped patients.
6. To obtain history —
 - (a) From relatives who cannot visit hospital.
 - (b) From other agencies.
 - (c) From neighbors, etc., when the information already obtained shows a disagreement.
7. To locate friends of patients who are no longer visited.
8. Various miscellaneous personal affairs of patients.
9. To find employment for recovered patients.
10. To secure return to family care of senile and other harmless chronic patients.

An effort has been made to keep accurate statistics from the beginning of the work. A daily record of visits in or out of the hospital is kept. There is a register for all new cases, each patient being numbered as the work is taken up, and a complete card index of the social service cases, with duplicate filed in the medical office. Some months ago a card file was started of all patients going out on trial visit. This is checked up

weekly, new cases entered, returned ones removed, and at the discharge the condition is noted under the final date, and the card filed away with the discharged cases. Cards are made out in a similar manner for escaped patients, so that it is very easily ascertained how many to look up.

The social service report is written, under that heading, on the regular medical record sheet and incorporated in the record. All social facts and results of investigations are stated, and when possible the social opinion of the situation is expressed. All purely medical data — as, for instance, histories — are written out and handed to the physicians, so that as much as is necessary may be put in the medical case record at the proper place for such information.

The problems presented are varied and interesting. Possibly, owing to the mental condition of the patients, the questions which come up are more peculiar than those arising in other institutions. For instance, there is a group of patients who for years have been eccentric, garrulous and irritating. As they grow older, the mental condition becomes more and more evident, and they finally come here. One pawned her watch and let the time expire before doing anything; another left a suitcase in a bakery for two years; another had storage to pay on her trunks; one left a kitten shut in an empty house; another had a piano she wished to sell. An effort has been made to look out for these things.

The family of every married patient is looked up. The Confidential Exchange of Information is used in this connection to ascertain if any other agency is already interested in the family. If it is, then a telephone communication is sufficient to show our interest and ascertain what is being done. When no agency knows the family, a visit is made. If there seems to be a need of supervision or aid, the attention of the proper authority is called to the situation. This may be either the church or some relief agency.

In investigating a home previous to the discharge of a patient, the following considerations are kept in mind: the locality, the conditions of the house, number of rooms, number in family and the income, how many children there are and who will have supervision or care of family. If receiving aid from

a charitable organization, is the return of the patient going to increase the burden? The patient's mental condition is also considered and the intelligence of those who are to take charge of him. An effort is made to improve unfavorable surroundings.

A few examples of the various types of cases dealt with might be interesting.

Case A. Girl, seventeen years; on visit, runs away from relative and gets married. Located by social worker. Co-operation with guardian; is returned to hospital. Escapes from hospital. Guardian arranging for annulment of marriage. Girl's condition mentally, good. Supervised by worker and discharged as if on visit.

Case B. Man with large family. Relief and supervision for children obtained; girl sent to sanatorium for tuberculosis. Man on visit, worked for hospital. Was returned to wards; escaped. Family still visited occasionally for supervision, and will notify hospital if man's whereabouts is discovered.

Case C. Woman, fifty-three years; single. Relatives had her committed because she annoyed them. Social worker found employment and supervised for six months. Woman discharged then, self-supporting. Later troubled relative about some money. Worker visited her and explained possibility of recommitment if she persisted in this course. She promised to do nothing more and so far has kept her word.

Cases D and E. Patients committed and history pointed to family trouble. Investigation in one case upheld suspicions that quarreling was the basis of commitment. In the other, facts were discovered to uphold the charges made and warrant the patient being held.

Case F. Young man on visit, foreigner. Two opposing claims made by relatives. Visit made with interpreter. Patient brought back to hospital and has demented so rapidly that it proves the complaints were justifiable.

Case G. Man with family. Visit; income at present sufficient and woman a good manager. Later, man on visit; work slack, aid needed. Woman advised what to do, and an agency interested. The aim here was to get aid and advice soon enough to prevent the problem becoming too acute.

Many others might be quoted, but these few cases will serve to show something of what is being done. Some of the problems may be solved in a very short time, requiring but little work. Others, however, require much time and thought. It is not possible, either, to give thorough supervision to many patients over a long period of time. This is one of the features of the work which can be developed only when there are

more to carry it on. Other progressive developments should be more systematic ward visiting, work on the question of employment for patients about to be discharged, and further effort towards boarding out patients.

In connection with the training school, three evening lectures were given to the senior class on the underlying principles of social service. At present four nurses are having individual instruction in home visiting and the possibility of medical social work for nurses. There is a weekly class or conference for the discussion of their work during the previous week. For assistance in this work thanks are extended to Miss Gardner, superintendent of nurses of Boston Consumptives Hospital, out-patient department, Miss Bruce, director of the Dorchester Relief Society and Dispensary, and Miss Moore, of the Dorchester House, for giving this department the privilege of our nurses visiting their institutions for instruction in methods used.

Thanks are also due the Associated Charities, the Society for Prevention of Cruelty to Children, and the Society for the Care of Destitute Mothers with Infants, for much information which has been readily offered, and to the Boston Legal Aid Society and the Women's Educational and Industrial Union for their advice at various times. Other agencies, too, have been most helpful.

Respectfully submitted,

GERTRUDE L. FLETCHER,

Social Worker.

Nov. 30, 1914.

SUPERINTENDENT OF NURSES' REPORT.

To the Superintendent of the Boston State Hospital.

I herewith submit the fifteenth annual report of the training school for nurses.

Graduating Class of 1914.

Catherine M. Allan.	Della M. Greene.
Bessie M. Dunsworth.	Elsie C. McPherson.
Annie M. Logan.	Nellie M. Sullivan.
Nora A. Patriquin.	Alice R. Waterhouse.
Harriet W. Tanton.	Joseph G. Kavanagh.
Mary E. Doucette.	

Nursing Staff.

	Mén.	Women.	Totals.
Superintendent of nurses,	-	1	1
Assistant superintendents of nurses (one graduate of this school; one graduate of another school).	-	2	2
Supervisors, day: —			
Graduates of this school,	-	5	5
Graduate of another school,	1	-	1
Not a graduate,	1	-	1
Supervisors, night: —			
Graduates,	-	2	2
Not a graduate,	1	-	1
Head nurses: —			
Graduates of this school,	1	19	20
Graduates of other schools,	-	2	2
Pupils,	-	4	4
Attendants,	8	3	11
Day nurses: —			
Graduate of another school,	1	-	1
Pupils,	3	32	35
Attendants,	33	28	61

Nursing Staff — Concluded.

	Men.	Women.	Totals.
Night nurses: —			
Relief, graduate of another school,	—	1	1
Pupils,	3	11	14
Attendants,	11	14	25
Probationers,	—	15	15
Totals,	63	139	202

NOTE. — Twenty-eight women nurses and attendants are employed in eight wards occupied by male patients.

Accepted during the Year.

	Men.	Women.
Probationers,	—	66
Attendants,	41	10
Graduates of this school re-employed,	—	8
Graduates of other schools,	1	2

Left during the Year.

Graduates of this school,	—	12
Graduates of other schools,	1	3
Pupils,	1	18
Attendants,	38	29
Probationers,	—	28
Dropped from school, remained as attendants,	—	7

The school opened this year with an attendance of 77 pupils, as follows: —

	Men.	Women.
Seniors,	—	15
Intermediate,	2	21
Juniors,	7	20
Probationers,	—	12

The training school graduated, during the year, 11 nurses, including 1 man, — making a total of 121 since it was organized.

Most of the senior nurses have gone to the Boston City Hospital during the past year, for their six months' course; at the present time there are 7 of them there finishing their course.

Beginning last January, 13 of the Boston City Hospital nurses have been here for a three months' course in mental nursing, 9 of whom have finished their course, secured their certificates, and returned to the Boston City Hospital, leaving 4 still here.

This year, in addition to the usual month in the industrial room required of each nurse, special classes in occupational work have been started, and also in social service work.

The classes include practical and theoretical work in both subjects.

The regular course of instruction has been further enlarged to include classes and lectures for the attendants and probationers in the practical care of the mentally sick.

Owing to the increase in the number of wards and the number of women nurses on the male wards, as well as the addition to the curriculum, it was necessary for the supervision to put an assistant superintendent of nurses (Miss J. Taylor) at the west group.

Miss J. M. Buist returned to us at the beginning of October as assistant superintendent of nurses at the east group.

Respectfully,

JANE ROBERTSON,
Superintendent of Nurses.

Nov. 30, 1914.

VALUATION.

Nov. 30, 1914.

REAL ESTATE.

Buildings and 152 acres of land taken from the city of Boston, Dec. 1, 1908,	\$1,073,392 00
79 acres of land taken Nov. 3, 1909,	367,456 47
Amount paid on new buildings and additions: —	
Infirmary,	255,496 99
Laundry,	43,997 90
Butler,	38,721 07
Psychopathic department (land and building),	577,221 37
Repairing south dormitory,	5,841 81
Building for 100 female patients,	97,422 06
House for 42 male nurses,	19,082 56
Supplies and cold storage,	40,383 16
Light and power,	15,252 22
Reception building,	46,766 12
Two cottages, men's group,	26,045 22
Cottage for farm patients,	24,936 45
Dining room,	12,765 51
Extending boiler house, etc.,	149,199 50
Extension water and sewerage system,	9,664 87
	<hr/>
	\$2,803,645 28

PERSONAL PROPERTY.

Food,	\$3,800 65
Clothing,	11,523 76
Furnishings,	75,834 01
Heat, light and power,	1,329 45
Repairs and improvements,	4,210 00
Farm, stable and grounds,	18,029 74
Miscellaneous,	18,168 91
Industries,	1,142 84
	<hr/>
	\$134,039 36

SUMMARY.

Real estate,	\$2,803,645 28
Personal property,	134,039 36
	<hr/>
	\$2,937,684 64

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1914:—

CASH ACCOUNT.			
Balance Dec. 1, 1913,	.	.	\$12,064 82
 <i>Institution Receipts.</i>			
<i>Receipts.</i>			
Board of inmates:—			
Private,	.	\$26,446 13	
Reimbursements, insane,	.	13,668 07	
		<hr/>	\$40,114 20
Sales:—			
Food,	.	\$1,028 25	
Clothing and materials,	.	55 00	
Furnishings,	.	4 50	
Heat, light and power,	.	91 58	
Repairs and improvements,	.	57 30	
Miscellaneous,	.	5 00	
Farm, stable and grounds:—			
Cows and calves,	\$68 85		
Pigs and hogs,	215 64		
Hides,	21 49		
Sundries,	724 77		
		<hr/>	1,030 75
Total sales,	.	.	2,272 38
Miscellaneous receipts:—			
Interest on bank balances,	.	\$323 77	
Sundries,	.	198 03	
		<hr/>	521 80
Total institution receipts,	.	.	42,908 38
Sales on account of industries fund,	.	.	178 74
 <i>Receipts from Treasury of Commonwealth.</i>			
Maintenance appropriations:—			
Balance of 1913,	.	\$5,623 65	
Advance money (amount on hand Nov. 30, 1914),	.	30,000 00	
Approved schedules of 1914,	.	\$393,895 86	
Less returned,	.	15 96	
		<hr/>	393,879 90
			<hr/>
			429,503 55
Special appropriations,	.	\$286,169 59	
Less returned,	.	1,470 03	
		<hr/>	284,699 56
Industries fund,	.	.	151 87
			<hr/>
Total,	.	.	\$769,506 92

Payments.

To treasury of Commonwealth, institution receipts,	\$42,908 38
Industries fund,	178 74

Maintenance appropriations: —

Balance November schedule, 1913,	\$17,688 47
Eleven months' schedules, 1914,	393,879 90
November advances,	15,374 25

426,942 62

Special appropriations, approved schedules,	284,699 56
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Industries fund, approved schedules,	151 87
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Balance, Nov. 30, 1914: —

In bank,	\$14,025 88
In office,	599 87

14,625 75

Total,	\$769,506 92
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MAINTENANCE.

Appropriation,	\$428,212 61
Expenses (as analyzed below),	427,962 35

Balance reverting to treasury of Commonwealth,	\$250 26
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Analysis of Expenses.

Salaries, wages and labor: —

Henry P. Frost, M.D., superintendent,	\$4,000 00
General administration,	62,108 27
Medical service,	33,502 01
Ward service (male),	32,562 55
Ward service (female),	51,447 99
Repairs and improvements,	7,792 73
Farm, stable and grounds,	9,574 67

\$200,988 22

Food: —

Butter,	\$14,203 77
Butterine,	1,388 48
Beans,	1,454 64
Bread and crackers,	315 97
Cereals, rice, meal, etc.,	1,612 34
Cheese,	1,432 91
Eggs,	11,153 66
Flour,	8,531 50
Fish,	2,847 85
Fruit (dried and fresh),	4,044 70
Lard,	424 08
Meats,	29,104 21
Milk,	11,655 79
Molasses and syrup,	344 23

Amounts carried forward,	\$88,514 13	\$200,988 22
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<i>Amounts brought forward,</i>	\$88,514 13	\$200,988 22
Food — <i>Con.</i>		
Spices, seasonings, salt, etc.,	1,125 07	
Sugar,	5,310 92	
Tea, coffee, broma and cocoa,	3,553 24	
Vegetables,	3,670 57	
Yeast,	412 42	
Sundries,	1,157 97	
	<hr/>	103,744 32
Clothing and materials: —		
Boots, shoes and rubbers,	\$1,693 37	
Clothing,	3,927 76	
Dry goods for clothing and small wares,	2,783 48	
Furnishing goods,	548 23	
Hats and caps,	27 36	
Leather and shoe findings,	86 97	
Materials and machinery for manufacturing,	125 57	
Sundries,	96 75	
	<hr/>	9,289 49
Furnishings: —		
Beds, bedding, table linen, etc.,	\$5,668 08	
Brushes, brooms,	118 71	
Carpets, rugs, etc.,	292 39	
Crockery, glassware, cutlery, etc.,	1,494 49	
Furniture and upholstery,	839 15	
Kitchen furnishings,	1,015 06	
Materials and machinery for manufacturing,	731 33	
Wooden ware, buckets, pails, etc.,	179 00	
Sundries,	4,591 23	
	<hr/>	14,929 44
Heat, light and power: —		
Coal,	\$41,488 85	
Gas,	480 24	
Oil,	256 10	
Sundries,	335 10	
	<hr/>	42,560 29
Repairs and improvements: —		
Brick,	\$14 18	
Cement, lime and plaster,	111 09	
Doors, sashes, etc.,	56 00	
Electrical work and supplies,	1,460 67	
Hardware,	702 66	
Lumber,	1,113 42	
Machines (detached),	2,205 00	
Paints, oil, glass, etc.,	2,950 31	
Plumbing, steam fitting and supplies,	2,273 36	
Roofing and materials,	60 04	
Sundries,	1,998 81	
	<hr/>	12,945 54
Farm, stable and grounds: —		
Blacksmith and supplies,	\$495 41	
Carriages, wagons, etc., and repairs,	2,482 87	
Fertilizers, vines, seeds, etc.,	1,014 14	
	<hr/>	
<i>Amounts carried forward,</i>	\$3,992 42	\$384,457 30

<i>Amounts brought forward,</i>	\$3,992 42	\$384,457 30
Farm, stable and grounds — <i>Con.</i>		
Hay, grain, etc.,	3,994 98	
Harnesses and repairs,	205 62	
Horses, .	600 00	
Cows, .	795 00	
Other live stock,	850 50	
Automobile supplies,	585 54	
Tools, farm machines, etc.,	471 10	
Sundries,	1,306 83	
		12,801 99
Religious services,		1,450 00
Miscellaneous: —		
Books, periodicals, etc.,	\$1,034 19	
Cuspidor supplies,	2 14	
Entertainments,	615 87	
Freight, expressage and transportation,	194 60	
Funeral expenses,	148 65	
Gratuities,	378 74	
Hose, etc.,	23 77	
Medicines and hospital supplies,	4,887 69	
Medical attendance, nurses, etc. (extra),	1,660 88	
Patients' board out,	110 13	
Postage,	1,152 08	
Printing and printing supplies,	1,564 83	
Printing annual report,	316 97	
Return of runaways,	88 87	
Soap and laundry supplies,	1,014 16	
Stationery and office supplies,	2,382 83	
School books and school supplies,	7 81	
Travel and expenses (officials),	674 78	
Telephone and telegraph,	1,996 93	
Tobacco,	198 70	
Water, .	8,790 53	
Sundries,	2,007 91	
		29,253 06
Total expenses for maintenance,		\$427,962 35

SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1913,	\$303,040 04
Appropriations for fiscal year,	498 57
Total,	\$303,538 61
Expended during the year (see statement annexed),	\$284,699 56
Reverting to treasury of Commonwealth,	1,910 80
	286,610 36
Balance Nov. 30, 1914,	\$16,928 25

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$14,625 75	
November cash vouchers (paid from advance money), account of maintenance,	15,374 25	
Due from treasury of Commonwealth, account of November, 1914, schedule,	4,082 45	
	<hr/>	\$34,082 45

Liabilities.

Schedule of November bills,	\$34,082 45
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PER CAPITA.

During the year the average number of inmates has been 1,371.27 +.

Total cost for maintenance, \$427,962.35.

Equal to a weekly per capita cost of \$6.0017.

Receipt from sales, \$2,272.38.

Equal to a weekly per capita of \$0.0318.

All other institution receipts, \$40,636.

Equal to a weekly per capita of \$0.5699.

INDUSTRIES FUND.

Balance, Dec. 1, 1913,	\$83 49
Receipts credited,	178 74
	<hr/>
	\$262 23
 Expenditures, approved schedules (see statement annexed),	151 87
Balance, Nov. 30, 1914,	110 36
	<hr/>
	\$262 23

INDUSTRIES.

Expenditures.

Tools and machinery: —

Clamps,	\$0 99	
Knitters,	1 01	
Mat frame,	30	
Needles, shuttles, etc.,	4 52	
Reeds,	5 70	
Rug hooks,	1 62	
Spinning wheel,	5 65	
Show case,	9 00	
Stamp,	75	
	<hr/>	\$29 54

Materials: —

Burlap,	\$7 87
Cards,	22
Clasps,	1 00
Crepe,	1 80
Dyes,	8 37
Floss,	1 35
Huck,	2 82
Lacing,	81
	<hr/>

<i>Amounts carried forward,</i>	\$24 24	\$29 54
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<i>Amounts brought forward,</i>	\$24 24	\$29 54
Materials — <i>Con.</i>		
Leather,	4 48	
Linen,	7 73	
Paper,	92	
Raffia,	3 83	
Sateen,	1 02	
Slipper soles,	1 35	
Sticks,	40	
Tape,	14	
Thread,	16 01	
Twine,	80	
Warp,	40 76	
Yarn,	20 65	
	<hr/>	122 33
		<hr/>
		\$151 87

Special Appropriations.

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Expended to Date.	Balance at End of Year.
For the purpose of establishing in the city of Boston a hospital for the first care and observation of mental patients and the treatment of acute and curable diseases,	Acts 1909, chap. 470	\$600,000 00	\$150 00	\$599,996 12	¹ \$3 88
Butler building addition,	Acts 1910, chap. 513	39,000 00	—	38,737 95	262 05
Infirmary,	Acts 1910, chap. 513	275,000 00	—	274,107 29	892 71
Land (paid direct from State Board of Insanity),	Res. 1911, chap. 65	250,000 00	} 35,800 00	396,196 24	3,803 76
Land (paid direct from State Board of Insanity),	Acts 1913, chap. 21	150,000 00			
Building for 100 female patients,	Res. 1912, chap. 118	105,000 00			
Building for 100 female patients,	Acts 1914, chap. 775	105,498 57	30,111 84	105,498 57	—
Light and power,	Res. 1912, chap. 118	16,000 00	4,742 03	15,252 22	¹ 747 78
Supplies and cold storage,	Res. 1912, chap. 118	42,000 00	21 28	40,840 86	¹ 1,159 14
Reception building,	Res. 1913, chap. 133	52,000 00	43,364 45	50,800 40	1,199 60
Two cottages, men's group,	Res. 1913, chap. 133	32,000 00	24,230 36	28,825 33	3,174 67
Cottage for farm patients,	Res. 1913, chap. 133	31,000 00	22,563 33	27,462 54	3,537 46
Dining room,	Res. 1913, chap. 133	18,000 00	14,087 93	15,077 63	2,922 37
Extending boiler house, etc.,	Res. 1913, chap. 133	150,000 00	105,007 40	149,199 50	800 50
Extension water and sewerage system,	Res. 1913, chap. 133	10,000 00	4,620 94	9,664 87	335 13
		\$1,770,498 57	\$284,699 56	\$1,751,659 52	\$16,928 25

¹ Reverting to treasury of the Commonwealth.

Respectfully submitted,

FRED L. BROWN,

Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

WARREN A. MERRILL,

Assistant Supervisor of Accounts.

PRODUCTS OF THE FARM AND GARDEN.

GARDEN PRODUCTS.

Asparagus, 10 boxes,	\$40 00
Beans, string, 260 $\frac{1}{4}$ bushels,	221 21
Beet greens, 102 $\frac{1}{4}$ bushels,	40 90
Beets, 138 bunches,	6 90
Beets, 471 $\frac{3}{4}$ bushels,	283 05
Cabbage, 670 hundredweight,	435 50
Carrots, 635 bushels,	381 00
Cauliflower, 5 bushels,	2 75
Celery, 67 boxes,	50 25
Chard, Swiss, 326 $\frac{1}{2}$ bushels,	130 60
Corn, sweet, 1,232 bushels,	739 20
Cucumbers, $\frac{3}{4}$ box,	75
Kale, 953 $\frac{3}{4}$ bushels,	59 43
Lettuce, 850 boxes,	212 50
Onions, 565 bushels,	339 00
Parsley, 2 $\frac{1}{2}$ bushels,	87
Parsnips, 196 $\frac{1}{2}$ bushels,	127 72
Peas, green, 52 $\frac{1}{4}$ bushels,	104 50
Peppers, 2 bushels,	1 00
Potatoes, 3,510 bushels,	1,930 50
Pumpkins, 1 $\frac{1}{2}$ hundredweight,	2 25
Radishes, 8 bushels,	6 00
Rhubarb, 11,402 pounds,	114 02
Scullions, 23 bushels,	5 75
Spinach, 282 bushels,	98 70
Squash, summer, 34 $\frac{1}{2}$ barrels,	20 70
Squash, winter, 245 hundredweight,	245 00
Tomatoes, green and ripe, 461 bushels,	461 00
Turnips, white, 1,193 bushels,	298 25
Turnips, ruta бага, 461 bushels,	345 75
Apples, firsts, 32 barrels,	64 00
Apples, seconds, 75 barrels,	75 00
Apples, crab, 2 $\frac{1}{2}$ bushels,	5 38
Cherries, 6 quarts,	72
Currants, 189 quarts,	9 45

Pears, 14½ bushels,	\$10 87
Plums, 2¾ bushels,	2 67
Blackberries, 694 quarts,	83 28
Raspberries, 87 quarts,	15 66
Strawberries, 2,987 quarts,	358 44
<hr/>	
Total,	\$7,330 52

FARM PRODUCTS.

Alfalfa, 32 tons,	\$192 00
Ensilage, 150 tons,	750 00
Fodder, green, corn, 28 tons,	140 00
Fodder, green, clover and grass, 24 tons,	120 00
Fodder, green, millet, 13 tons,	65 00
Fodder, green, oats, barley and peas, 22 tons,	110 00
Fodder, green, rye, 14 tons,	75 00
Hay, English, 170 tons,	3,527 50
Rowen, 14 tons,	140 00
Rye, straw, 9 tons,	180 00
Milk, 116,565 quarts,	6,605 35
Beef, 7,077 pounds,	636 93
Pork, 13,686 pounds,	1,642 32
Pork trimmings, 3,102 pounds,	195 65
Hides, 13,	15 54
Ice, 650 tons,	1,950 00
<hr/>	
Total,	\$16,345 29
Garden products,	\$7,330 52
Farm products,	16,345 29
<hr/>	
Total,	\$23,675 81

REPORT OF WORK DONE IN THE MEN'S INDUSTRIAL ROOMS.

FOR THE YEAR ENDING NOV. 30, 1914.

Articles manufactured.

Basket, clothes, reed,	1
Basket, rattan, 3-bushel, laundry,	1
Baskets, $\frac{1}{2}$ -bushel farm,	33
Baskets, 1-bushel farm,	15
Baskets, rattan, 4-bushel laundry,	5
Baskets, rattan, 5-bushel laundry,	6
Baskets, rattan, 6-bushel laundry,	2
Baskets, rattan, 8-bushel laundry,	6
Baskets, waste-paper,	9
Block, hat shaping,	1
Braid, coir, pounds,	102
Brooms, corn whisk,	55
Brooms, parlor,	826
Brooms, sink whisk,	148
Brooms, stable,	59
Brushes, bath,	24
Brushes, dust, 9-inch,	36
Brushes, floor, hair, long-handled,	102
Brushes, horse-mane, Palmyra,	51
Brushes, nail,	89
Brushes, radiator,	9
Brushes, scrub, common,	390
Brushes, scrub, long-handled,	31
Brushes, shoe,	39
Brushes, waxing,	129
Brushes, whitewash, bristle,	4
Brushes, whitewash, Tampico,	16
Caps,	2
Clamp, harness,	1
Clothes, suit of,	1
Coat hangers, wire,	144
Covers, clothes hamper,	2
Denim, yards,	24
Dusters, cotton wall,	2
Folders, bill,	350

Forms, hat,	6
Forms, basket,	3
Frames, rug,	3
Hats, rye straw,	37
Hats, tea-chest straw,	150
Mats, chain, ordinary,	18
Mats, chain, special,	2
Mats, coir yarn brush, ordinary,	2
Mats, coir yarn brush, special,	3
Mats, old rope brush,	2
Mattresses, double, new,	5
Mattresses, single, new,	52
Mattresses, indestructible,	30
Pads, sweat,	10
Photographs, framed,	24
Pillows, feather,	12
Pillows, hair,	121
Pillows, sofa, feather,	12
Pillows, sofa, hair,	24
Rugs, woven, rag,	42
Rugs, woven, old carpet,	24
Shades, transom, cut and fitted,	49
Shades, window, new,	34
Shirting (yards),	33
Swats, fly,	253
Top for automobile,	1
Toweling, new (yards),	159
Toweling, old socks (yards),	352
Tufts for mattresses,	7,000

Articles renovated.

Automobile windows dressed,	5
Automobile mud guards,	2
Baskets, $\frac{1}{2}$ -bushel farm,	15
Baskets, 1-bushel farm,	7
Baskets, 4-bushel,	82
Baskets, 5-bushel,	15
Baskets, 6-bushel,	31
Baskets, 8-bushel,	24
Baskets, waste,	9
Beaters, egg,	4

Boot, automobile,	1	Shades, window,	165
Boxes, bread,	3	Stool, piano,	1
Brooms, hair, floor,	199	Table, reed,	1
Brooms,	17	Tables, bedside,	40
Broom handles,	720	Taborets,	3
Brushes, waxing,	91		
Carpets,	10		
Carriage foot rug,	1	<i>Work done in Shoe Shop.</i>	
Carriage window,	1	Shoes repaired, men's (pairs), . .	672
Chairs,	148	Shoes repaired, women's (pairs),	123
Chairs, steamer,	6	Slippers repaired, men's (pairs),	239
Chairs caned and repaired, . .	135		
Checks, door,	3		
Closet seat,	1	<i>Harness.</i>	
Couch,	1	Automobile strap,	1
Crystal, watch,	1	Bridle,	1
Cues retipped,	66	Collars,	10
Curtains, auto, storm,	4	Knee caps,	3
Cushions,	11	Reins, horse,	7
Drawers, table,	2	Saddle strap,	1
Hammocks,	4	Side straps,	6
Handles, mop,	92		
Mats, door,	16	<i>Rubber Goods.</i>	
Mattresses,	809	Air cushions,	15
Poles, transom,	2	Air rings,	3
Rollers, shade,	47	Bottles, hot water,	14
Scrubs, long-handled,	76	Ice caps,	3
Settees caned,	7	Sheets, whole and half,	125

REPORT OF WORK DONE IN WOMEN'S INDUSTRIAL ROOM.

FOR THE YEAR ENDING NOV. 30, 1914.

Candy bags,	1,500	Fancy work— <i>Con.</i>	
Cards decorated (dozen),	2	Table covers,	5
Clay work (pieces),	5	Table runners,	17
Crocheting and knitting:—		Lace:—	
Afghan,	1	Bobbin (yards),	19½
Baby jackets,	2	Crochet (yards),	35¼
Bootees (pairs),	3	Paper work:—	
Caps,	4	Electric light shades,	10
Hood,	1	Laundry shirt bands,	5,100
Hot-water bottle cover,	1	Paper flowers (dozen),	18¼
Lingerie runners (dozen),	5½	Plaster casts,	2
Safety pins,	10	Reed and raffia work:—	
Shawls,	4	Baskets (dozen),	11¾
Slippers (pairs),	3	Curtain hold backs (pairs),	7
Tea-pot holders,	16	Napkin rings,	4
Wash cloths (dozen),	5	Picture frames,	9
Wristers (pairs),	17	Pillow tops,	2
For the Red Cross Society:—		Rugs:—	
Helmets,	7	Braided,	3
Mufflers,	11	Hooked,	8
Socks (pairs),	2	Turkish,	2
Wristers (pairs),	32	Salt bead chains,	6
Dyeing, raffia, thread, burlap,		Spinning, hanks,	4
rags (pounds),	600	Stencils designed and made,	12
Fancy work:—		Straw work:—	
Bags (dozen),	3	Hats made,	45
Bath-robe cards,	4	Hats trimmed,	45
Collars,	11	Table mats of all kinds (dozen),	5
Corset bags,	3	Weaving:—	
Doilies (dozen),	5	Cloth (yards),	10½
Guest towels,	4	Rugs,	80
Sofa pillows,	7	Towelng (yards),	133¾

REPORT OF WORK DONE IN WOMEN'S SEWING ROOM.

FOR THE YEAR ENDING NOV. 30, 1914.

Aerator covers,	2
Aprons,	1,114
Aprons, maids',	30
Bath robes,	122
Bureau scarfs,	52
Burial robes,	192
Caps, nurses',	1,593
Caps, skull,	4
Coffee bags,	52
Curtains, denim (pair),	1
Curtains, gauze,	5
Curtains, muslin and scrim (pairs),	58
Curtains, sash (pairs),	105
Cylinder covers,	48
Drawers,	54
Dresses,	685
Feeding bibs,	108
Gingham cover,	1
Gymnasium suits,	10
Helmets,	4
Instrument bags,	18
Jumpers,	221
Kimonos,	78
Laundry bags,	117
Mattress ticks,	105
Milk strainers,	14
Milk-tank covers,	2
Nightdresses,	1,096
Nightshirts,	240
Overalls,	120
Pajamas,	12
Petticoats,	144
Pillow slips,	408
Pillow ticks,	24
Pillows,	36
Rubber pillows,	27
Screens, sets,	45
Shades, green,	31
Sheet, barber,	1
Sheets, bed,	867
Sheets, lap,	16
Shirts, bed,	518
Shirts, outing,	545
Stockings, flannel (pairs),	6
Suspenders (pairs),	108
Tablecloths,	197
Towels,	1,430
Towels, hand,	204
Towels, roller,	12
Towels, suture,	6
<i>Mending.</i>	
Coats,	789
Drawers,	825
Dresses,	92
Jumpers,	14
Laundry bags,	240
Overalls,	166
Overcoats,	396
Shirts,	619
Socks (pairs),	517
Trousers,	901
Undershirts,	169
Vests,	803

REPORT OF WORK DONE ON WOMEN'S WARDS.

FOR THE YEAR ENDING NOV. 30, 1914.

Aprons,	354	Rugs, hooked,	3
Artificial flowers,	12	Rugs, woven,	6
Baskets, raffia,	3	Sanitary napkins,	252
Beads, salt (sets),	2	Sheets,	1,893
Bibs,	92	Straw braided (yards),	783
Covers, bureau,	60	Table napkins,	136
Covers, stand,	12	Towels,	2,150
Covers, table,	2	Bandages.	
Curtains (pairs),	7	Christmas and other holiday decorations.	
Doilies,	6	Dressings.	
Drawers (pairs),	24	Embroidery.	
Face cloths,	3	Kindergarten work.	
Hose, unraveled (pairs),	196	Knitting.	
Jacket, woolen,	1	Mending.	
Lace (yards),	3	Picking hair.	
Lace collar,	1	Red Cross work (knitting).	
Models,	2	Sewing carpet rags.	
Pillows, hair, made-over,	6	Sewing on buttons.	
Pillow slips,	1,182	Sewing on tags.	
Rug, braided,	1		

STATISTICAL TABLES.

[FORM PRESCRIBED BY STATE BOARD OF INSANITY.]

2. — *Insane received on First and Subsequent Commitments.*

NUMBER OF COMMITMENT.	CASES COMMITTED.		
	Males.	Females.	Totals.
First to this hospital,	424	421	845
Second to this hospital,	43	46	89
Third to this hospital,	6	9	15
Fourth to this hospital,	—	2	2
Fifth to this hospital,	—	1	1
Sixth to this hospital,	1	—	1
Seventh to this hospital,	—	1	1
Tenth to this hospital,	1	—	1
Total cases,	475	480	955
Total persons,	463	469	932
Never before in any hospital for insane,	394	391	785

3. — *Nativity and Parentage of Insane Persons First admitted to Any Hospital.*

PLACE OF NATIVITY.	MALES.			FEMALES.			TOTALS.		
	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.
Massachusetts,	178	57	50	153	45	44	331	102	94
Other New England States,	25	20	20	34	32	34	59	52	54
Other States,	27	17	21	19	11	15	46	28	36
Total native,	230	94	91	206	88	93	436	182	184
Other countries: —									
Albania,	1	—	—	—	—	—	1	—	—
Austria,	2	3	5	2	2	2	4	5	7
Armenia,	1	1	1	1	—	—	2	1	1
Azores,	1	2	2	—	—	—	1	2	2
Belgium,	—	—	—	1	1	1	1	1	1
Canada,	33	41	46	39	41	47	72	82	93
Cuba,	1	1	—	—	—	—	1	1	—
England,	7	18	11	11	17	12	18	35	23
Finland,	1	1	1	2	2	2	3	3	3
France,	1	5	3	—	—	—	1	5	3
Germany,	11	14	14	4	11	9	15	25	23
Holland,	2	2	2	—	—	—	2	2	2
Ireland,	60	130	135	71	137	136	131	267	271
Italy,	7	13	14	12	14	14	19	27	28
Malta,	1	1	1	—	—	—	1	1	1
Newfoundland,	4	4	4	9	6	6	13	10	10
Norway,	—	—	—	1	1	1	1	1	1
Poland,	1	2	2	2	1	1	3	3	3
Portugal,	1	1	1	—	—	—	1	1	1
Russia,	18	24	23	17	20	20	35	44	43
Scotland,	5	8	7	3	13	7	8	21	14
South America,	—	—	—	—	1	—	—	1	—
Spain,	1	1	1	—	—	—	1	1	1
Sweden,	1	2	2	7	6	6	8	8	8
Switzerland,	—	—	—	1	1	1	1	1	1
Syria,	1	1	1	—	—	—	1	1	1
Wales,	1	1	1	1	1	1	2	2	2
West Indies,	1	1	1	—	—	—	1	1	1
Total foreign,	163	277	278	184	275	266	347	552	544
Total native,	230	94	91	206	88	93	436	182	184
Unknown,	1	23	25	1	28	32	2	51	57
Totals,	394	394	394	391	391	391	785	785	785

4. — *Residence of Insane Persons admitted from the Community.*

	FIRST ADMITTED TO ANY HOSPITAL.			OTHER ADMISSIONS.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Massachusetts: —									
Hampshire County,	1	—	1	—	—	—	1	—	1
Essex County,	20	9	29	1	—	1	21	9	30
Hampden County,	1	—	1	—	—	—	1	—	1
Middlesex County,	85	51	136	5	3	8	90	54	144
Norfolk County,	7	4	11	—	—	—	7	4	11
Suffolk County,	257	320	577	63	75	138	320	395	715
Worcester County,	4	—	4	—	—	—	4	—	4
Plymouth County,	12	5	17	—	—	—	12	5	17
Total resident,	387	389	776	69	78	147	456	467	923
Connecticut,	1	—	1	—	—	—	1	—	1
Maine,	2	—	2	—	—	—	2	—	2
Michigan,	1	—	1	—	—	—	1	—	1
Azores,	1	—	1	—	—	—	1	—	1
Austria,	1	—	1	—	—	—	1	—	1
Italy,	—	1	1	—	—	—	—	1	1
Spain,	1	—	1	—	—	—	1	—	1
Sweden,	—	1	1	—	—	—	—	1	1
Total nonresident,	7	2	9	—	—	—	7	2	9
Cities and towns of 10,000 or over,	372	379	751	69	78	147	441	457	898
Cities and towns under 10,000,	22	12	34	—	—	—	22	12	34
Aggregates,	394	391	785	69	78	147	463	469	932

5. — *Civil Condition of Insane Persons first admitted to Any Hospital.*

	Males.	Females.	Totals.
Unmarried,	166	155	321
Married,	175	152	327
Widowed,	46	77	123
Divorced,	6	7	13
Unknown,	1	—	1
Totals,	394	391	785

6. — Occupation of Insane Persons first admitted to Any Hospital.

MALES.

Agents,	2	Hair worker,	1
Attorneys,	4	Hotel clerk,	1
Baker,	1	Insurance agents,	2
Barbers,	2	Iron workers,	2
Bartenders,	3	Janitors,	4
Bellboy,	1	Laborers,	50
Blacksmiths,	2	Laundrymen,	3
Bookbinder,	1	Leather workers,	3
Bookkeeper,	1	Letter carriers,	2
Bootblack,	1	Liquor dealer,	1
Brakeman,	1	Lithographer,	1
Brass workers,	4	Longshoremen,	2
Butcher,	1	Machinists,	12
Carpenters,	14	Marine diver,	1
Canvasser,	1	Masons,	4
Chauffeur,	1	Mill hand,	1
Chiropodist,	1	Miner,	1
Cigar makers,	2	Motorman,	1
Clerks,	14	Musicians,	3
Contractors,	2	None,	28
Cooks,	2	Nurse,	1
Cooper,	1	Pattern maker,	1
Collectors,	2	Packers,	3
Draftsman,	1	Painters,	11
Druggists,	4	Peddlers,	3
Electricians,	5	Pilot,	1
Engineers,	3	Plumbers,	3
Errand boys,	6	Porters,	2
Factory hands,	8	Piano makers,	2
Farmers,	3	Physician,	1
Firemen,	6	Post-office clerks,	2
Fisherman,	1	Printers,	10
Foundry employee,	1	Railroad brakeman,	1
Freight workers,	2	Railroad conductor,	1
Furniture packers,	2	Real estate,	2
Garage helpers,	3	Roofer,	1
Gardeners,	5	Rubber workers,	2
Gas works employee,	1	Salesmen,	21
Glazier,	1	Sailors,	3

6.—*Occupation of Insane Persons first admitted to Any Hospital — Con.*

Ship builder,	1	Tinsmiths,	2
Ship purser,	1	Ticket agent,	1
Shoemakers,	8	Truckman,	1
Stablemen,	2	Trunk maker,	1
Steam fitter,	1	Waiters,	6
Stenographer,	1	Watchman,	1
Storekeepers,	5	Water inspector,	1
Students,	5	Unknown,	9
Surveyor,	1	Police,	2
Tailors,	11		
Teacher,	1	Total,	394
Teamsters,	23		

FEMALES.

Actress,	1	Music teachers,	2
Author,	1	None,	68
Bookkeepers,	2	Nurses,	4
Cashiers,	2	Saleswomen,	4
Compositor,	1	Scrubwomen,	2
Costumer,	1	Seamstresses,	9
Cigar makers,	2	Shoemaker,	1
Clerks,	9	Social worker,	1
Cook,	1	Stenographers,	9
Domestics,	51	Students,	5
Dressmakers,	8	Teachers,	2
Factory employees,	13	Waitresses,	9
Housework at home,	159	Weaver,	1
Laundresses,	6	Unknown,	8
Maids,	7		
Medium,	1	Total,	391
Milliner,	1		

8. — *Probable Causes of Mental Disease in Persons first admitted to Any Hospital.*

EXCITING CAUSES.	ADMITTED.			PREDISPOSING CAUSES.					
	Males.	Females.	Totals.	HEREDITARY TENDENCY.			NEUROTIC TENDENCY.		
				Males.	Females.	Totals.	Males.	Females.	Totals.
Acute infectious diseases,	1	4	5	-	-	-	-	-	-
Alcohol,	72	27	99	6	2	8	2	27	99
Brain tumor,	1	-	1	-	-	-	-	-	-
Cardiorenal,	4	2	6	-	-	-	-	-	-
Carcinoma,	1	3	4	-	-	-	-	-	-
Childbirth,	7	3	10	-	-	-	-	-	-
Congenital,	1	3	4	-	-	-	-	-	-
Diabetes,	2	1	3	-	-	-	-	-	-
Drug habit,	5	5	10	-	-	-	-	-	-
Epilepsy,	1	2	3	-	-	-	-	-	-
Grief,	1	2	3	-	-	-	-	-	-
Hyperthyroidism,	1	2	3	-	-	-	-	-	-
Huntington's chorea,	2	2	4	-	-	-	-	-	-
Lactation,	-	25	25	-	2	2	-	2	2
Menopause,	-	2	2	-	-	-	-	-	-
Multiple sclerosis,	-	1	1	-	-	-	-	-	-
Nephritis and arteriosclerosis,	-	1	1	-	-	-	-	-	-
Pellagra,	-	3	3	-	-	-	-	-	-
Post-operative,	2	3	5	-	1	1	-	-	-
Pregnancy,	66	84	150	3	7	10	-	4	12
Senility and arteriosclerosis,	64	9	73	2	2	4	-	9	9
Syphilis,	7	2	9	1	-	1	-	-	-
Trauma,	-	2	2	-	-	-	-	-	-
Tuberculosis,	-	3	3	1	2	3	-	-	-
Worry,	2	-	2	-	-	-	-	-	-
Totals,	239	182	421	13	14	27	2	33	129
Unknown,	155	209	364	8	23	31	1	4	4
Totals,	394	391	785	21	37	58	3	37	133

9. — *Probable Duration of Mental Disease before Admission.*

PREVIOUS DURATION.	FIRST ADMITTED TO ANY HOSPITAL.		
	Males.	Females.	Totals.
Congenital,	14	6	20
Less than 1 month,	41	48	89
From 1 to 3 months,	47	49	96
3 to 6 months,	21	37	58
6 to 12 months,	31	20	51
1 to 2 years,	24	31	55
2 to 5 years,	39	41	80
5 to 10 years,	10	9	19
10 to 20 years,	5	5	10
Over 20 years,	—	2	2
Totals,	232	248	480
Unknown,	162	143	305
Totals,	394	391	785
Average known duration (in years), . . .	1.37	1.52	1.45

10.—*Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died—Con.*

FORM OF DISEASE.	ADMITTED.			DISCHARGED.						DIED.			AGGREGATES.	
	Males.	Females.	Totals.	RECOVERED.		CAPABLE OF SELF-SUPPORT.		IMPROVED.		NOT IMPROVED.		NOT INSANE.		Totals.
				Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
A.—First admitted to any hospital— <i>Con.</i>														
Unclassified,	62	60	122	4	4	8	—	7	11	18	—	—	—	—
Not insane,	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals,	394	391	785	54	48	102	8	47	70	117	88	76	164	682
B.—Other admissions:—														
Psychosis with brain tumor,	1	—	1	—	—	—	—	—	—	—	—	—	—	1
General paralysis,	3	—	3	—	—	—	—	1	—	1	—	—	—	2
Cerebral arteriosclerosis,	—	1	1	—	—	—	—	—	—	—	—	—	—	1
Semile psychosis,	3	—	3	—	—	—	—	1	—	1	—	—	—	2
Cerebral syphilis,	1	—	1	—	—	—	—	—	—	—	—	—	—	1
Alcoholic psychoses, acute:—														
Pathological intoxication,	1	—	1	—	—	—	—	—	—	—	—	—	—	1
Delirium tremens,	4	4	8	3	3	6	—	1	—	1	—	—	—	3
Acute hallucinosis,	7	5	12	5	1	6	—	—	—	—	—	—	—	7
Alcoholic psychoses, chronic:—														
Chronic hallucinosis,	—	—	—	—	—	—	—	1	—	1	—	—	—	1
Demented types,	2	2	4	—	—	—	—	—	—	—	—	—	—	2
Polynuritic psychosis,	—	1	1	—	—	—	1	—	—	—	—	—	—	2
Manic-depressive psychosis,	22	50	72	6	28	34	—	4	5	9	5	1	6	16
Allied to manic-depressive psychosis,	—	1	1	—	—	—	—	—	—	—	—	—	—	1
Involution melancholia,	1	3	4	—	—	—	—	—	1	1	—	—	—	2
Epileptic psychosis,	2	3	5	—	—	—	—	—	—	—	—	—	—	2
Paranoic condition,	17	14	31	—	—	—	—	4	8	12	3	4	7	13
Dementia præcox,	1	1	2	—	—	—	1	4	2	2	1	—	—	6
Constitutional inferiority,	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Imbecility,	1	1	2	—	—	—	—	1	1	2	—	—	—	2
Unclassified,	13	7	20	—	—	—	—	—	—	—	—	—	—	2
Not insane,	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals,	81	89	170	14	29	43	1	13	12	25	22	16	38	69
Aggregate cases,	475	480	955	68	77	145	7	60	82	142	110	92	202	510
Aggregate persons,	463	469	932	68	77	145	7	60	82	142	108	92	200	498

11. — Discharges of the Insane classified by Admission and Result.

NUMBER OF THE ADMISSION.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			DIED.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	55	57	112	7	2	9	50	76	126	99	84	183	47	53	100	97	96	193	355	368	723
Second,	11	7	18	—	1	1	7	4	11	10	8	18	2	6	8	5	2	7	35	28	63
Third,	1	7	8	—	—	—	2	1	3	—	—	—	1	—	1	—	2	2	4	10	14
Fourth,	—	3	3	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—	1	4	5
Fifth,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	2
Sixth,	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
Ninth,	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	1	—	1
Totals,	68	77	145	7	3	10	60	82	142	110	92	202	50	59	109	102	101	203	397	414	811
First admissions to any hospital.	54	48	102	6	2	8	47	70	117	88	75	163	47	53	100	95	96	191	337	344	681

12.—Causes of Death and Forms of Mental Disease in Persons who died.

CAUSES.	AGGREGATES.			PSYCHOSIS WITH CEREBRAL TUMOR.			SENILE PSYCHOSIS.			GENERAL PARALYSIS.			CEREBRAL ARTERIO-SCLEROSIS.			CEREBRAL SYPHILIS.			ALCOHOLIC PSYCHOSIS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
General diseases:—																					
Facial erysipelas,	1	—	1	—	—	—	2	1	3	—	—	—	—	—	—	1	—	—	1	—	—
Carcinoma,	3	5	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diabetes,	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia from infection,	2	2	4	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
Exhaustion,	3	4	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nervous system:—																					
Cerebral syphilis,	2	—	2	2	—	2	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—
Cerebral tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral edema,	1	—	1	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
General paralysis,	39	5	44	—	—	—	—	5	—	39	—	44	—	—	—	—	—	—	—	—	—
Chronic meningitis,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Multiple sclerosis,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Circulatory system:—																					
Cerebral arteriosclerosis,	5	10	15	—	—	—	2	5	7	—	—	—	3	5	8	—	—	—	—	—	—
Cerebral hemorrhage,	5	14	19	—	—	—	—	4	4	—	—	—	4	9	13	—	—	—	—	—	—
Organic heart disease,	8	9	17	—	—	—	1	6	7	1	—	1	1	1	2	—	—	—	—	—	—
Organic heart disease and nephritis,	1	2	3	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
Endocarditis and myocarditis,	—	10	10	—	—	—	—	3	3	—	—	—	—	—	2	—	—	—	—	—	—

[illegible]

Respiratory system :—																
Broncho-pneumonia,	.	.	.	.	.	.	1	1	—	—	—	—	—	—	—
Lobar pneumonia,	.	.	.	.	.	.	—	—	—	—	—	—	—	—	—
Pulmonary embolus,	.	.	.	.	.	.	—	—	—	—	—	—	—	—	—
Empyema,	.	.	.	.	.	.	—	—	—	—	—	—	—	—	—
Pulmonary tuberculosis,	.	.	.	.	.	.	3	3	—	—	—	—	—	—	—
Gastrointestinal system :—																
Enteritis, acute,	.	.	.	.	.	.	—	—	—	—	—	—	—	—	—
Strangulated hernia,	.	.	.	.	.	.	—	—	—	—	—	—	—	—	—
Genito-urinary system :—																
Nephritis, chronic,	.	.	.	.	.	.	—	—	—	—	—	—	—	—	—
Nephritis, acute,	.	.	.	.	.	.	1	1	—	—	—	—	—	—	—
Totals,	.	.	.	.	.	.	7	4	11	1	6	7	2	5	7
								4	14	18						1

13. — Duration of Mental Disease and its Treatment in Persons who recovered or died.

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.					
	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION.			WHOLE KNOWN PERIOD OF MENTAL DISEASE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
A. — Recovered: —												
Under 1 month,	29	18	47	15	10	25	6	2	8	3	—	3
From 1 to 3 months,	6	13	19	16	11	27	13	9	22	—	1	1
3 to 6 months,	5	6	11	9	13	22	5	8	13	2	5	7
6 to 12 months,	3	2	5	9	7	16	12	12	24	—	4	7
1 to 2 years,	—	3	3	4	5	9	7	9	16	5	11	16
2 to 5 years,	1	2	3	1	2	3	1	3	4	4	7	8
Over 5 years,	—	—	—	—	—	—	—	1	1	—	—	—
Totals,	44	44	88	54	48	102	44	44	88	14	28	42
Unknown,	10	4	14	—	—	—	10	4	14	—	1	1
Totals,	54	48	102	54	48	102	54	48	102	14	29	43
Average of known cases (in months),	2.1	4.6	3.35	4.4	6.2	5.4	6.5	9	7.8	19.8	23.1	21.5
										10.3	17.6	13.9

B. — Died:—												
Under 1 month,												
From 1 to 3 months,												
From 3 to 6 months,												
From 6 to 12 months,												
From 1 to 2 years,												
From 2 to 5 years,												
From 5 to 10 years,												
From 10 to 20 years,												
Over 20 years,												
Totals,												
Unknown,												
Totals,												
Average of known cases (in months),												
13	10	23	17	29	46	5	4	9	—	—	1	1
10	10	20	15	14	29	3	8	11	—	—	1	1
10	10	20	13	10	23	6	8	14	—	—	—	—
14	9	23	12	11	23	6	7	13	—	—	1	2
13	14	27	25	14	39	19	14	33	—	—	1	3
15	20	35	11	7	18	34	23	57	—	—	1	1
6	5	11	1	7	8	7	7	14	—	—	3	4
—	2	2	1	3	4	1	7	8	—	—	2	—
—	—	—	—	1	1	—	2	2	—	—	—	—
81	80	161	95	96	191	81	80	161	12	7	5	12
14	16	30	—	—	—	14	16	30	—	—	—	—
95	96	191	95	96	191	95	96	191	7	7	5	12
16	20.8	14.5	12.9	21.6	17.3	28.9	42.4	35.7	85.4	75.3	37.8	36.2

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No. 84

SEVENTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE YEAR ENDING NOVEMBER 30, 1915.



BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
32 DERNE STREET.

1916.

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362.2
M386
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TRUSTEES

OF THE

BOSTON STATE HOSPITAL.

HENRY LEFAVOUR, <i>Chairman</i> ,	Boston.
HON. MELVIN S. NASH, <i>Secretary</i> ,	Hanover.
MRS. KATHERINE G. DEVINE,	Boston.
LEHMAN PICKERT,	Brookline.
MRS. HELEN B. HOPKINS,	Boston.
JOHN A. KIGGEN,	Hyde Park.
JOHN F. FENNESSEY, M.D.,	Dorchester.

Stated meetings of the trustees are held at the hospital on the second Tuesday of each month.

VISITING COMMITTEES, 1915-16.

February,	Mrs. DEVINE, Mrs. HOPKINS, Mr. PICKERT, Mr. NASH.
March,	Mr. LEFAVOUR, Dr. FENNESSEY, Mr. KIGGEN, Mrs. DEVINE.
April,	Mrs. HOPKINS, Mr. PICKERT, Mr. NASH, Mr. LEFAVOUR.
May,	Dr. FENNESSEY, Mr. KIGGEN.
June,	Mrs. DEVINE, Mrs. HOPKINS.
July,	Mr. LEFAVOUR, Mr. NASH.
August,	Mr. PICKERT, Dr. FENNESSEY.
September,	Mr. KIGGEN, Mrs. DEVINE.
October,	Mrs. HOPKINS, Mr. PICKERT.
November,	Mr. NASH, Mr. LEFAVOUR.
December,	Dr. FENNESSEY, Mr. KIGGEN.
January,	Mrs. DEVINE, Mrs. HOPKINS.

RESIDENT OFFICERS

OF THE

BOSTON STATE HOSPITAL.

HENRY P. FROST, M.D.,	<i>Superintendent.</i>
SAMUEL W. CRITTENDEN, M.D.,	<i>Assistant Superintendent.</i>
ARMY C. NOBLE, M.D.,	<i>Senior Assistant Physician.</i>
MARY E. GILL-NOBLE, M.D.,	<i>Assistant Physician.</i>
JOHN I. WISEMAN, M.D.,	<i>Assistant Physician.</i>
WILLIAM M. DOBSON, M.D.,	<i>Assistant Physician.</i>
EDMUND M. PEASE, M.D.,	<i>Assistant Physician.</i>
GENEVA TRYON, M.D.,	<i>Assistant Physician.</i>
MARY E. MORSE, M.D.,	<i>Pathologist.</i>
JANE ROBERTSON,	<i>Superintendent of Nurses.</i>
JEAN TAYLOR,	<i>Assistant Superintendent of Nurses.</i>
JESSIE M. BUIST,	<i>Assistant Superintendent of Nurses.</i>
FRED L. BROWN,	<i>Treasurer and Clerk.</i>
IDA C. AITKEN,	<i>Matron, East Group.</i>
VIOLET O. LAWLEY,	<i>Matron, West Group.</i>

NONRESIDENT OFFICERS.

WILLIAM E. ELTON,	<i>Steward.</i>
ARTHUR E. MORSE,	<i>Chief Engineer.</i>
LOUIS S. WHITE,	<i>Farmer.</i>

ATTENDING SURGEON.

IRVING J. WALKER, M.D.

BOARD OF CONSULTING PHYSICIANS.

CHARLES F. WITHERINGTON, M.D.,	<i>Physician.</i>
JOHN L. AMES, M.D.,	<i>Physician.</i>
JOHN BAPT BLAKE, M.D.,	<i>Surgeon.</i>
FRED B. LUND, M.D.,	<i>Surgeon.</i>
JOHN JENKS THOMAS, M.D.,	<i>Neurologist.</i>
ROBERT G. LORING, M.D.,	<i>Ophthalmologist.</i>
ALFRED M. AMADON, M.D., ¹	<i>Otologist.</i>
HARRIS P. MOSHER, M.D.,	<i>Laryngologist.</i>
MALCOLM STORER, M.D.,	<i>Gynecologist.</i>
CHARLES J. WHITE, M.D.,	<i>Dermatologist.</i>

¹ Deceased.

PSYCHOPATHIC DEPARTMENT.

MEDICAL OFFICERS.

- ELMER E. SOUTHARD, M.D., *Director*, May 1, 1912.
ELISHA H. COHOON, M.D., *Administrator*, Aug. 21, 1915.
HERMAN M. ADLER, M.D., *Chief of Staff*, June 1, 1912.
ANNA C. WELLINGTON, M.D., *Executive Assistant*, Nov. 1, 1913.
EGBERT W. FELL, M.D., *First Assistant Physician*, Jan. 6, 1915, to May 25, 1915.
JAMES F. MCFADDEN, M.D., *Assistant Physician*, July 3, 1914, to April 15, 1915.
WM. A. MACINTYRE, M.D., *Assistant Physician*, May 19, 1914, to Aug. 31, 1915.
EDWARD T. GIBSON, M.D., *Assistant Physician*, Dec. 1, 1914.
GEORGE E. MCPHERSON, M.D., *Junior Assistant Physician*, June 30, 1915.
HARRIET M. GERVAIS, M.D., *Junior Assistant Physician*, Aug. 15, 1913.
H. C. SOLOMON, M.D., *Junior Assistant Physician*, Sept. 1, 1913, to Nov. 15, 1915.
CORNELIA J. SCHORER, M.D., *Junior Assistant Physician*, July 5, 1914.
DONALD GREGG, M.D., *Assistant Physician, Out-patient Service*, Jan. 1, 1913.
A. W. STEARNS, M.D., *Assistant Physician, Out-patient Service*, Nov. 15, 1915.
ROBERT M. YERKES, Ph.D., *Psychologist*, March 13, 1913.
MARJORIE SAWYER, *Assistant Psychologist*, Nov. 1, 1914.
CECILIO S. ROSSY, *Interne in Psychology*, June 1, 1914.
JOHN H. BAZELEY, *Interne in Psychology*, Sept. 1, 1914.

INTERNES.

- EDWARD B. ALLEN, July 6, 1914, to June 1, 1915.
DIEGO A. BIASCOECHEA, Oct. 24, 1915.
EARL BLOOMER, June 15, 1914, to April 1, 1915.
H. ALDEN BUNKER, June 1, 1914, to July 1, 1915.
WALLACE A. CLIFFORD, April 1, 1915, to Oct. 1, 1915.
DENNIS W. CRILE, Oct. 23, 1915.
MERVIN FREEMAN, Oct. 1, 1914.
ROSS GOLDEN, June 1, 1915.
ADRIAN G. GOULD, Oct. 1, 1914.
G. PHILIP GRABFIELD, Oct. 15, 1913, to May 18, 1915.
JONATHAN P. HADFIELD, Oct. 1, 1914, to June 1, 1915.
WILBERT E. HARDY, April 13, 1915.
CARL B. HUDSON, Oct. 1, 1914, to Feb. 28, 1915.
HILMAR KOEFOD, Feb. 1, 1914.
C. W. McCLURE, M.D., June 15, 1915.
DONALD J. MCPHERSON, Oct. 1, 1914, to June 1, 1915.
BEN D. PAUL, June 1, 1915.
DAVID L. RAPPORT, Oct. 15, 1915.
JOHN B. RIEGER, March 1, 1915.
ANNA E. STEFFEN (*eugenics*), Oct. 1, 1912.
DEWAYNE TOWNSEND, Oct. 1, 1914, to June 1, 1915.
HARRIS H. VAIL, Oct. 1, 1914, to Feb. 28, 1915.
EDWARD S. WELLES, Oct. 1, 1914.

SPECIAL WORKERS.

- MARY C. JARRETT, *Chief of Social Service Department*, May 5, 1913.
GERTRUDE INNES, *Dietitian*, Sept. 1, 1914.
ELIZABETH CHAPMAN, *Clinical Historian*, Aug. 15, 1913.

The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to present herewith their seventh annual report.

ORGANIZATION OF THE BOARD.

The vacancy in the Board at the time of our last report was filled by the appointment of Dr. John F. Fennessey of Boston. At the February meeting Mr. Henry Lefavour was elected chairman and Mr. Melvin S. Nash secretary.

PERSONS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the year, 1,472 patients were under the care of this Board, of whom 1,374 were in the main hospital and 98 were at the psychopathic department. At the close of the year the number of persons for whom the hospital was responsible had increased to 1,609, of whom 1,498 were at the main hospital, 100 at the psychopathic department, and 11 were in the care of private families, the trustees having assumed during the year, at the request of the State Board of Insanity, the care of patients who had been placed with private families. The rated capacity of the main hospital being now 1,307, it will be seen that in spite of numerous transfers the hospital is still in a crowded condition.

NEW CONSTRUCTION.

No new buildings have been authorized by the General Court for the last two years. The size of the hospital should depend upon the provision for patients in other parts of the State and upon the policy of the State Board of Insanity, and it is not therefore a question upon which trustees may pass. Each institution, however, should have as many wards as are

necessary for a proper classification of patients, and such general service buildings as will lead to an economical administration of the institution. To secure a satisfactory classification, this hospital should have another building for the isolation of excited and violent patients, and more provision for the ever-increasing infirmary class, with the necessary rooms for the additional nurses required. More ample accommodations are needed for carrying on the men's industries. The public authorities have already objected to the maintenance of work-rooms under the infirmary because of fire risk, a danger well illustrated by one fire that has occurred there, though fortunately not serious. Occupation is the most hopeful therapeutic agency in the care of the patients, and has also an economic aspect that cannot be overlooked. A much larger number of men might be given occupation were the facilities sufficient. Since the Commonwealth purchased the Austin Farm and Pierce Farm properties of the city of Boston, several important service buildings have been constructed, but there are no suitable barns and stables. As a result, the hospital has been obliged to abandon its own milk supply, the cow barns being no longer sanitary, and the stables for horses are not only occupying land needed for other buildings, but are in such a dilapidated state that they are in constant need of repair and are a source of danger from fire. The State Board of Insanity realizing all these needs have submitted the following items for recommendation to the next General Court, with which the trustees are in full accord: —

1. Constructing and furnishing male infirmary building, to accommodate 324 patients and 30 nurses,	\$330,000
2. Constructing and furnishing women's custodial building, to accommodate 150 patients and 4 nurses,	140,000
3. Constructing and furnishing nurses' home, west group, to accommodate 84 nurses,	65,000
4. Constructing horse stable (\$11,400), two cow barns and milk house (\$11,700), and hay barn (\$9,900),	33,000
5. Sewer and water service extension,	5,000
6. Constructing and furnishing industrial building,	37,000
7. Fire alarm and protection,	2,500
8. Constructing fire escapes,	1,550
9. Constructing piggery,	1,800
	<hr/>
	\$615,850

MAINTENANCE.

The appropriation for the past year having been reduced by a large amount below our estimates, we have been unable to carry through as much in the way of repairs and renovations as was desirable. For the coming year we recommend an appropriation of \$502,199, of which \$384,702 is for the main hospital, with an estimated population of 1,500, and \$117,497 for the psychopathic department.

WIDENING OF HARVARD STREET.

By chapter 91 of the Special Acts of 1915 the city of Boston was authorized to take such portion of the land belonging to the hospital as was needed for straightening and widening Harvard Street. The change in the course of the street left a small triangular lot between the new street line and the hospital property, and with the approval of the trustees the State Board of Insanity acquired this land for the Commonwealth, so that the hospital property again extends to the street line.

THE PSYCHOPATHIC DEPARTMENT.

The usefulness of the psychopathic department as a hospital for the first care and treatment of patients in the metropolitan district continues to be demonstrated. The demands upon the department have increased both in the number of patients seeking its assistance and in the new classes of cases calling for its consideration. A much larger appropriation might be spent with great profit to the Commonwealth. The trustees have given unusual attention the past year to the form of organization and administration of this department. The duties of the director, in connection with his office of pathologist of the State Board of Insanity, and in the direction of the scientific investigations of the department, as well as in various useful public services, have increased to such an extent that it was deemed desirable to relieve him of the immediate oversight of administrative details, and for this purpose the office of administrator was established and was filled by the appointment of Dr. Elisha H. Cohoon, formerly of the Rhode Island State

Hospital at Howard, R. I. Much valuable service is rendered by the members of the staffs of other hospitals who are temporarily resident at this department, but more medical officers with permanent tenure are very much needed. The out-patient service has been carried with little additional expense for medical care, but this most important and valuable feature of the hospital needs special attention and will amply repay an increased expenditure. Similarly the social service should be strengthened. The fewer cases that need to be brought into the wards, because of the assistance that may be rendered in the out-patient clinics and by advice in the home, and the more cases that may be discharged without commitment, with reliance upon the social service for proper supervision, the greater the satisfaction of the individuals concerned and the lessened expense to the Commonwealth.

The functions of this department with respect to investigations into the nature of mental disease and its alleviation and as an institution for training and instruction are equally important and concern the State at large. In several directions the trustees are co-operating with the State Board of Insanity in using the department for general investigations and for services that are of importance for all the State hospitals. Such a use of our facilities may well be extended, and the trustees are prepared to administer the property both as a hospital for the use of the district and as an institute of State-wide functions under the direction of the State Board of Insanity. In this case the expenses of the latter functions may well be charged to the appropriation made for the scientific investigations of the State Board. There continues to be an interchange of services between the main hospital and the psychopathic department, which means a large economy of maintenance for the latter.

SCHOOL FOR NURSES.

The State Board of Insanity has requested the trustees to consider the advisability of establishing a training school for nurses of advanced grade. In our opinion this may best be done at the psychopathic department under a special superintendent of nurses. The trustees have suggested that a brief period of experience, perhaps of three months, at this active

reception hospital would be of service to the nurses in all the training schools of the State hospitals. Such a course would also help in standardizing the training at the various institutions. Later a selected group from each hospital might be given a more prolonged training at this hospital in the most recent approved methods of nursing, with special view to their becoming supervisors and superintendents.

CONDITION OF THE HOSPITAL.

The general condition of the hospital is very satisfactory. The details of the year's work are included in the reports of the various officers which are hereto appended, and the trustees desire again to express their grateful appreciation of the faithful and loyal services of these officers.

HENRY LEFAVOUR.
KATHERINE G. DEVINE.
LEHMAN PICKERT.
MELVIN S. NASH.
HELEN B. HOPKINS.
JOHN A. KIGGEN.
JOHN F. FENNESSEY.

Nov. 30, 1915.

SUPERINTENDENT'S REPORT.

To the Trustees of the Boston State Hospital.

I have the honor to present herewith the seventh annual report of the hospital, for the year ending Nov. 30, 1915, together with the statistical tables prescribed by the State Board of Insanity, which are for the year ending September 30.

There were 1,420 patients under care Oct. 1, 1914, namely: in the main hospital, 1,331; in family care, 1; in the psychopathic department, 88. Included in the figures for the psychopathic department were 33 cases held "for temporary care and observation."

Including the "temporary-care" service, there were 3,123 admissions, 2,728 dismissals, and 228 deaths, leaving 1,587 at the close of the year, distributed as follows: main hospital, committed, 1,467, voluntary, 19, in family care, 10, total, 1,496; psychopathic department, committed, 35, voluntary, 13, temporary care, 43, total, 91.

The daily average number of patients was 1,535, of whom 1,370 were State charges, 79 reimbursing, and 86 private.

The voluntary admissions numbered 511, of whom 80 were classed as not insane. Additional patients to the number of 67 were admitted as voluntary cases, but, committed later to this hospital, these appear in the admission column among the commitments only.

There were admitted for temporary care and observation 1,601 cases, of whom 459 were subsequently committed to this hospital, and 167 others remained after the observation period as voluntary patients.

Exclusive of nominal admissions for discharge (122), temporary-care cases (1,601), transfers (23), and returns from visit or escape (60), and excluding also 80 voluntary patients not insane, 1,237 patients were received, of whom 1,095 were ad-

mitted for the first time to this hospital, 109 for the second time, 21 for the third time, and 12 for the fourth to the eighth time.

The cases never before in any hospital for the insane numbered 1,008. Concerning this group of first admissions the following facts are noted in accordance with custom.

Four hundred sixty-nine, or 46.5 per cent., were foreign born, and 718, or 71 per cent., were of foreign parentage on one or both sides.

The average age on admission was 43.2 years. Seventeen per cent. were sixty years of age or over, and 15 patients were over eighty years old.

The probable cause of the mental disease was recorded in 513 of these cases; the cause was unascertained in 495. Of ascertained causes the principal ones were: senility and arteriosclerosis, 139 cases; syphilis, 133 cases; alcohol, 124, in which it was the exciting cause, besides 35 in which this was a contributory or predisposing factor. The involution period was held responsible in 26 cases; 25 were congenital; 12 were due to epilepsy; 5 to trauma. There were 5 cases of brain tumor among the admissions. The mental disease in 3 cases was due to pellagra. Altogether, physical disease and injury, including senile conditions, accounted for the mental disease in 31.7 per cent. of the cases admitted.

Figured on the total number, including those whose cause was unascertained, the percentage of cases due to the principal causes mentioned was: senility and arteriosclerosis, 13.7 per cent.; syphilis, 13.1 per cent.; alcohol, 12.3 per cent.

The influence of closer attention paid to obtaining the family history is shown by increase of the percentage of admissions with known heredity of mental disease from 8 per cent. last year to 16.5 per cent. for this period.

Among the first admissions were 90 cases of general paralysis, or 8.9 per cent., of whom 29 were women, an unusually high ratio for the female sex in this disease. There were 199 cases of dementia præcox, or 19.7 per cent.; 144 cases of manic-depressive insanity, or 14 per cent. The alcoholic psychoses numbered 105, or 10.4 per cent.; senile psychoses, 64, or 6.3 per cent.; and cerebral arteriosclerosis, 72, or 7.1 per cent.

The discharges, exclusive of transfers, temporary care and "voluntary not insane," numbered 689. Of these, 117 were recovered and 211 improved, including 9 classed as capable of self-support.

There were 204 deaths, exclusive of the temporary-care service in which 24 deaths occurred. Forty-three died of general paralysis, 41 of other diseases of the brain, 22 of heart disease, 12 of tuberculosis, 18 of enteritis. There were 4 deaths this year from pellagra.

The observations above noted, based on the statistical tables, refer to the combined service of the main hospital and the psychopathic department. The movement of patients in the main hospital is shown separately, as follows:—

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1914,	576	756	1,332
Admitted within the year,	412	466	878
Committed,	118	150	268
Voluntary,	9	7	16
Transferred from psychopathic department,	167	171	338
Transferred from other hospitals,	5	10	15
From family care, State Board of Insanity,	—	8	8
From family care, this hospital,	1	2	3
From escape,	2	—	2
From visit,	18	19	37
Nominally admitted for discharge,	92	99	191
Dismissed within the year,	321	403	724
Discharged,	104	105	209
Recovered,	36	53	89
Capable of self-support,	8	—	8
Improved,	44	34	78
Not improved,	16	18	34
Died,	97	80	177
Transferred,	17	76	93
Family care,	2	12	14
Escaped,	12	—	12
Visit,	80	130	219
Patients remaining Sept. 30, 1915,	667	819	1,486
Family care, Sept. 30, 1915,	1	0	10

ADMINISTRATION.

The problems of this year were less complex than usual, owing to the fact that no new buildings were under construction. The chief difficulty experienced was one which, unfortunately, is not new in hospital administration, — to find room for patients admitted in excess of the proper capacity of the wards. Our quarters are overcrowded now, and this condition cannot be relieved until additional accommodations are provided. Meanwhile, to a greater extent than heretofore, patients residing in Boston are being committed to hospitals at a distance, which is a hardship to them and to their families.

Advantage was taken of the quiet interval between building operations to improve the grounds at various points and put the place more in order. One of the urgent needs is a suitable fence enclosing the premises, which would protect the patients against invasion of their privacy by the idly curious, and save the institution from much trespass and depredation.

The relocation and widening of a section of Harvard Street, undertaken by the city, made it necessary for the hospital to acquire, through the State Board of Insanity, an adjoining triangle of land containing 6,300 square feet, and established a new boundary line, which, if extended to Walk Hill Street as is proposed, will necessitate setting back the existing stone wall and involve the loss of a number of fine trees.

Improvements were made in the organization for fire protection and some additional equipment installed, — fire-alarm bells, electric lights on fire escapes, and automatic sprinkler in one basement.

MEDICAL SERVICE.

Our five-year record of freedom from epidemic disease was broken by the occurrence of dysentery last spring and again late in the summer. Cases occurred only in the infirmary and Cowles buildings, — a total of 78, with 8 deaths. Clinical and laboratory studies have shown that the trouble was not the usual type of bacillary dysentery, but one associated with the presence of an organism of the "intermediate group," related to the bacillus of hog cholera. In this connection it is of

interest to note that the swine at the hospital were severely infected with cholera during the summer, and that the ward buildings in which patients contracted dysentery were those nearest the piggery and the most subject to invasion by flies from these premises. Our experience having indicated that this infection may possibly be kept alive by the occurrence of mild diarrhœal disorders without marked clinical symptoms, to again become active under favoring conditions, we have now undertaken prophylactic vaccination of patients in the infirmary, to create immunity against the disease.

Acting on advice of the State Department of Health and with their co-operation and assistance, we are engaged in a search, by laboratory tests, for possible typhoid carriers among employees and patients having to do with the handling and serving of food; and, as a further safeguard against the introduction of typhoid fever, have begun the immunization of employees and patients after the method so successfully employed in the army and elsewhere.

An addition to the medical staff is needed to meet these unusual demands and others which present day standards of diagnosis and treatment have created. A specimen of blood for the Wassermann test for syphilis is obtained from each new patient admitted, and spinal fluid, in addition, from a large number. In connection with the work of Dr. Harry C. Solomon, appointed by the State Board of Insanity to conduct a research on syphilis, the treatment of a series of cases with salvarsan has been undertaken at this hospital. Following the provision of adequate equipment for surgical work, which was noted the past two years, there has been a marked increase in the number of operations performed, for which we are mainly indebted to Dr. Irving J. Walker, attending surgeon, who has given his services most generously for the benefit of our patients. Both the medical and the nursing staff are stimulated and helped by the addition to their mental hospital routine of these general hospital features. The following is a list of the more important surgical operations performed: —

Hernia, femoral (strangulated),	1
Hernia, inguinal,	2
Hernia, umbilical,	1

Cancer of liver, exploration,	1
Carcinoma of breast,	1
Epithelioma of lip,	1
Sarcoma, posterior mediastinum,	1
Tumor, benign,	2
Thoracentesis,	1
Abscess of lung, resection of rib,	1
Glands, cervical, removal of,	1
Sigmoidectomy,	1
Trachelorrhaphy,	1
Varicose veins,	4

Dr. Walter J. Whelan has continued his service as dentist to the institution, assisted by Mr. (now Dr.) Ronald Rankin, a dental student filling a position as attendant in the hospital. The dentist's report of his work for the year is as follows: —

Operative: —

Treatments: —

Of the teeth,	175
Prophylactic,	206

Fillings: —

Amalgam,	75
Cement,	42
Gutta-percha,	38
Silicate,	4

Extractions,	305
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Anæsthesia: —

General,	27
Local,	164

Alveolar abscess: —

Number from infected teeth,	21
Number from imbedded roots,	3

Examinations of patients for various tooth disorders,	52
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Prosthetic dentistry: —

Plates,	4
Repair plates,	8
Bridges and crowns removed,	4
Bridges and crowns replaced,	2

Violet ray used in connection with inflammatory conditions of the mouth and in the treatment of pyorrhœa,	41
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Pyorrhœa: —

Cases treated hypodermically and locally,	6
Treatments given each patient of emetine hydrochloride,	7

Examination of patients for pyorrhœa (these cases were divided into four classes): —

Number of patients examined,	1,267
Normal appearing gums (24 per cent.),	299
Slightly spongy gums (28 per cent.),	364
Spongy gums (20 per cent.),	249
Spongy gums and loose teeth (17 per cent.),	215
Teeth absent or false (11 per cent.),	140

For an account of the laboratory activities attention is invited to the report of Dr. Morse, pathologist, which is appended. Autopsies, obtained in 52 cases, were very thoroughly carried out, and a large volume of work in bacteriology was done besides the routine procedures in connection with clinical diagnosis.

Dr. Geneva Tryon, who was appointed assistant physician April 1, with clinical service at the infirmary, has devoted several afternoons a week to the laboratory, taking part in the routine and pursuing special studies in neuropathology.

FAMILY CARE.

At the beginning of this year we had 1 patient boarded out. In January this hospital assumed the care of 8 patients boarded out in the city of Boston by the family-care department of the State Board of Insanity. Since then we have placed 5 additional women and 2 men in family care, and given them supervision through visits by the social worker and members of the medical staff. Up to October 1, 2 of these patients have been discharged capable of self-support; 3 were returned to this hospital; and 1, whose home is in Lynn, was transferred to the Danvers State Hospital, leaving us with 10 in family care at the end of the year, — 6 supported by the State, 1 supported in part by the State, 1 at private expense, and 2 self-supporting. It is, naturally, difficult to find suitable homes for patients in the city at the low rate of compensation fixed by the State, but it has been demonstrated that some can be found, and, as there are many cases in the hospital who might with advantage and at reduced cost be thus cared for, it is hoped that this service can be extended in the future. The plan will not only

relieve overcrowding in the wards and save money for the State, but will give its beneficiaries the comforts and freedom of life in the community under sufficient supervision to assure their proper care and treatment. For some it will doubtless prove a stepping-stone to self-support and discharge.

SOCIAL SERVICE.

Our second year with organized social service as an aid to the medical work, especially in the after-care of patients discharged on trial, was completed July 1. The records show 620 cases given attention during the two years by the social worker and her occasional assistants, of which number 347 were cases supervised after leaving the hospital. Two hundred eighty-eight of these patients were discharged at the end of the trial period, 46 were returned to the hospital, and 13 were still under supervision. The service is most valuable, but its possibilities are merely indicated — not realized — by the single worker so far available. At least one regular assistant is urgently needed, in part for the family-care group, which otherwise can only grow at the expense of other divisions of the work we are now attempting to do with an insufficient force.

TRAINING SCHOOL.

The curriculum remains the same as last year, with a prospect of some changes to be made soon, as the State Board desires to have the course uniform in all the hospitals, and a committee is now engaged on a study of the various schools with this end in view.

The class of 1915 numbered 16. It included, as last year, only one man, emphasizing anew the fact that the majority of men engaged in the care of our patients, while adapting themselves readily enough to the duties and requirements of attendants, have little capacity and less ambition to qualify as fully trained nurses. The problem presented by this lack is well met, however, by the greater use made of women nurses in the men's wards; and it is well to recognize that in our work there is an equally important field for the trained attendant, both male and female. All of the men are given a two months'

course of lectures and practical instruction; and this year we have established for such of the women pupils as cannot complete the full course in the nurses' training school an abridged course of two years, leading to certification as "trained attendant."

At the graduation exercises held in the chapel on the evening of June 17, the address to the class was made by Dr. Michael J. O'Meara, chairman of the State Board of Insanity, and diplomas presented by the chairman of the trustees, who made the happy announcement that one of the trustees offered a prize of \$25, to be awarded next year for the best practical suggestion for added comfort and happiness of patients.

EMPLOYMENT OF PATIENTS.

Lack of room for expansion of the shop industries carried on by male patients is matter for regret. The present workrooms are filled beyond their comfortable capacity, and, considering the pronounced therapeutic and economic value of systematic employment for a large proportion of our patients, it is indeed a mistaken policy which denies them the opportunity for it. A special effort should be made this year to secure funds for a commodious industrial building in which it will surely be possible to enlarge greatly our present activities in this line. The manufacture of straw hats, with which we have struggled for several years, has been brought to a fair degree of success as regards the final product, and as an occupation suitable for the class of patients usually idle in their wards, the straw braiding is eminently satisfactory, being simple, clean, and requiring no tools or apparatus whatever. The instructors in this department were stimulated by participation in the occupational exhibit held in connection with the recent Mental Hygiene Conference in Boston.

REPAIRS AND IMPROVEMENTS.

Ordinary repairs called for most of the money available for this purpose. The old barn at east group required a new roof and replacement of many beams and clapboards; the administration building was similarly overhauled, much rotten

woodwork replaced with new, and a slate roof put on one section, while the shingles on other portions were repaired and treated. Similar work was done on the superintendent's house and the stable at west group. New offices for the steward and his clerks were equipped, giving much-needed facilities for the work in that department. A composition floor replaced an old wooden floor in the serving room of the congregate dining hall, and other work was done there, putting cabinets and sinks in good condition. Fire-alarm bells were installed in Fisher and Ward B, and automatic sprinklers for fire protection in the workshops in basement of the infirmary. The farmhouse was wired for electric lights; and street lights were put on the roadway from the office to Harvard Street entrance. The painting done included the engine room, machine shop, ward building F, B corridor and toilet room, window guards and iron stairways, railings, etc., on various buildings, and inside and outside work on superintendent's house.

FARM AND GROUNDS.

Grading around the cottages and farm dormitory was completed, and progress made on the extensive job of cutting and filling in rear of the Butler building; roads and walks were constructed, drain laid and catch basins built; bowlders and stumps were removed from the fields; stone hauled and 800 feet of wall built on Walk Hill Street.

The farm and garden crops suffered from the excessive rains of midsummer, but vegetables for winter storage, except potatoes, were obtained in abundance. There was an outbreak of hog cholera during the summer, which caused the loss of 40 of the swine. The remainder, about 162 large and small, were saved by the prompt administration of serum treatment by the Bureau of Animal Industry. As advised by the trustees, we are at this time disposing of our few remaining cows, deeming it inadvisable to replenish the herd until suitable buildings can be provided for their care.

MAINTENANCE.

The amount expended for maintenance was \$474,516.71, which, divided by the daily average number of patients, 1,558.7, makes the weekly per capita cost \$5.85. Receipts for board of private patients were \$24,998.11; from reimbursing patients, \$16,097.87; from sales and other sources, \$2,726.84, making the total income \$43,822.82.

Deducting receipts from gross expenses, the net cost of maintenance was \$430,693.89, which, divided by the above average number of patients, gives a net weekly per capita cost of \$5.32.

The above statement includes the psychopathic department. For the main hospital alone the amount expended for maintenance was \$364,353.33, which, divided by the daily average number of patients, 1,466.62, makes the gross weekly per capita cost \$4.77.

The expense of maintenance for the coming year is estimated at \$384,702 for the main hospital and \$117,497 for the psychopathic department, or \$502,199 altogether.

OFFICIAL VISITS AND INSPECTION.

The hospital was visited during the year, as usual, by the legislative committee on public charitable institutions, the State Board of Insanity, the Commission on Economy and Efficiency, by various representatives of these Boards from time to time, and regularly by the trustees either as a body or by committees. A large number of nonofficial visits were made by persons interested in the care of the insane, many of them connected with similar institutions in this and other States.

ENTERTAINMENT AND RELIGIOUS INSTRUCTION.

Besides indoor and outdoor games provided for amusement and recreation of patients, and the dances which are stock events, the following special entertainments were given from the amusement fund:—

Christmas concert by pupils of Stephen Townsend.

F. O. Harrell, legerdemain.

S. R. Vinton, illustrated lecture.

In addition to the above, the patients enjoyed concerts donated for their benefit by the Dorchester Woman's Club, the Postmen's Glee Club, and Rev. Father Gallagher and friends, to all of whom our thanks are given for this kindly service to our charges.

Religious services were conducted regularly by Rev. Edward A. Gallagher, Rev. Shirley D. Coffin and Rev. Moses L. Sedar, who have not confined their ministrations to the stated services, but have visited the wards to see individual patients and responded to all calls in behalf of those who were ill.

Grateful acknowledgment for donations is made to the following and to other friends whose gifts may have failed to be recorded: —

Rev. F. A. Cunningham, St. Leo's Church, melodeon for chapel services.

Trinity Church, books and magazines.

Mrs. J. G. Hart, magazines.

Church Periodical Club, magazines.

All Saints Church, magazines and periodicals.

Tennis and Racquet Club, magazines and periodicals.

Mr. John A. Kiggen, magazines.

Mrs. Rosa P. Heinzen, magazines.

Mrs. Julie Ashley, contribution of money for Christmas.

Boston Public Library, magazines and periodicals.

Again I wish to record my appreciation of my assistants, — medical officers, department heads, and faithful employees in various positions, — to whose loyal and co-operative efforts is largely due such success as the hospital administration has shown, under the guidance and with the cordial support and encouragement of the trustees.

Respectfully,

HENRY P. FROST,

Superintendent.

Nov. 30, 1915.

REPORT
OF THE
DIRECTOR OF THE PSYCHOPATHIC DEPARTMENT
OF THE
BOSTON STATE HOSPITAL.

To the Trustees of the Boston State Hospital.

I beg to submit herewith my fourth annual report, and the third to cover a year of work, as director of the psychopathic department of the Boston State Hospital.

As in previous reports, I shall take up under I., statistical features; II., problems of hospital management; III., medical and scientific problems of the year; IV., social problems, especially in the out-patient department; V., general and medical educational activities (conferences, medical clinics, social clinics); VI., lectures and publications; VII., acknowledgments.

The hospital was established, under the provisions of chapter 470 of the Acts of 1909, as a hospital for the first care and observation of mental patients, and the treatment of acute and curable mental disease. In compliance with said act the trustees of the Boston State Hospital erected, furnished and equipped buildings to accommodate 100 patients; the hospital at present operates 110 beds, so that the population may remain approximately 100 and still allow for emergencies.

The enabling act called for the establishment of, in addition to the requirements of an out-patient department, treatment rooms and laboratories for scientific research as to the nature, causes and results of insanity. A portion of the State Board of Insanity's general appropriation has, since 1909, contained a

sum of \$2,500 devoted to the investigation of the nature, causes, treatment and results of insanity, and the publication of such investigations.

The director of the hospital is an officer of the State Board of Insanity with the title of pathologist, and with the duties of supervision of the clinical, pathological and research work of the various institutions in the charge of that Board. The State Board of Insanity, through whose appropriation was paid the salary of the pathologist from 1909 to 1912, has resumed payment of the salary of said officer, and the sum formerly paid to him from the appropriation of the Boston State Hospital is now being paid to the administrator appointed Aug. 21, 1915.

The State Board of Insanity maintains a laboratory of standards in the Psychopathic Hospital building under the direction of the chemist, Dr. F. F. Flanders.

In the body of this report note is made of the continued and increasing success of the institution in attracting increasing numbers of patients, both house patients and out-patients. A measure of great importance to the proper classification and treatment of many noncommittable cases is the amendment to the temporary-care law mentioned below, in accordance with which temporary-care cases are admitted for a period of ten days (chapter 174, Acts of 1915) instead of seven days, as under the now obsolete chapter 395, Acts of 1911.

The internal economy of the institution has been greatly changed for the better by the appointment of an administrator, Dr. Elisha H. Cohoon. This appointment has relieved the medical staff of a large number of duties inconsistent with the proper progress of their tasks of classification and treatment.

There has been progress in the general understanding on the part of the community and the medical and legal professions of the essential differences between a hospital for the insane and a psychopathic hospital. A fuller account of these matters, together with references to the important educational activities of the hospital, is given below.

I. STATISTICS.

The daily average population during the medical year 1915 was 92. The number of patients in the hospital Oct. 1, 1915, was 91; Sept. 30, 1914, the number was 88.

The total admissions numbered 2,001, making a daily average intake of a little over 5 cases. Of these 2,001 cases, 77 were second or third admissions during the year, so that the total number of different persons admitted was 1,924.

These 2,001 cases were distributed among different forms of commitment, as follows: —

Temporary care (chapter 174, Acts of 1915),	1,083
Boston police (chapter 307, Acts of 1910),	446
Voluntary,	394
Observation (section 43, Revised Laws),	38
Pending examination and hearing (section 34, Revised Laws),	13
Emergency (section 42, Revised Laws),	21
Commitment Superior Court (section 103),	6

Of these admissions, 721 became regular court commitments later (514 to the Boston State Hospital).

The native-born (1,099) were found to exceed in numbers the foreign-born (854); the birthplace of 48 was unknown.

The average age on admission was 36.9.

Of the discharges, 673 were discharged not recovered, 508 not insane, 96 recovered, 51 dead.

I shall not go fully into the matter of clinical diagnosis in the department's cases, reserving this for special studies and a determination of the error in diagnosis in the different groups. To correspond, however, with former tables I present a table embodying the diagnosis in a group which we term for convenience the temporary-care group, which includes cases admitted under chapter 174, Acts of 1915; chapter 307, Acts of 1910; sections 34 and 43, chapter 504, Acts of 1909.

Temporary-Care Statistics for the Year.

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1914,	15	18	33
Admissions from Oct. 1, 1914, to Sept. 30, 1915,	841	760	1,601
Viz.: chapter 504, Acts of 1909, section 34,	7	6	13
chapter 504, Acts of 1909, section 43,	21	17	38
chapter 504, Acts of 1909, section 42,	7	14	21
chapter 307, Acts of 1910,	287	159	446
chapter 174, Acts of 1915,	519	564	1,083
Whole number of cases within the year,	856	778	1,634
Discharges from Oct. 1, 1914, to Sept. 30, 1915,	840	751	1,591 ¹
Viz.: recovered,	53	17	70
improved,	71	38	109
unimproved,	131	129	260
died,	12	12	24
not insane,	133	143	276
voluntary to Boston State Hospital,	73	94	167
committed to Boston State Hospital,	238	221	459
committed to Danvers State Hospital,	19	10	29
committed to Worcester State Hospital,	11	12	23
committed to Westborough State Hospital,	16	18	34
committed to Taunton State Hospital,	5	2	7
committed to Tewksbury State Hospital,	1	-	1
committed to Monson State Hospital,	7	3	10
committed to Medfield State Hospital,	30	28	58
committed to McLean Hospital,	7	2	9
committed to Norfolk State Hospital,	4	-	4
committed to Northampton State Hospital,	1	1	2
committed to Foxborough State Hospital,	15	10	25
committed to Dr. Mellus' Sanitarium,	1	-	1
committed to Wrentham School,	1	-	1
committed to Ring's Sanatorium,	1	-	1
committed to Wiswall's Sanitarium,	-	1	1
committed to Highland Hall Sanitarium,	-	1	1
committed to Dr. Bessey's Sanitarium,	1	-	1
returned to main hospital,	1	5	6
returned to Danvers State Hospital,	1	1	2
returned to Medfield State Hospital,	4	-	4

¹ Of the discharges, 6 males and 9 females were discharged to the Immigration Department.

Temporary-Care Statistics for the Year — Concluded.

	Males.	Females.	Totals.
Discharges — <i>Con.</i>			
Viz.: returned to Monson State Hospital, . . .	—	1	1
returned to Worcester State Hospital, . . .	1	1	2
returned to Westborough State Hospital, . . .	1	—	1
returned to Grafton State Hospital, . . .	1	1	2
Patients remaining Oct. 1, 1915, . . .	16	27	43
Daily average of temporary-care cases, . . .	18.77	16.75	35.52

Provisional Diagnosis in Temporary-Care Cases.

Alcoholic psychoses: —			
Delirium tremens,	53	12	65
Korsakow's psychoses,	8	8	16
Alcoholic hallucinosis,	47	14	61
Alcoholism,	9	7	16
Pathological intoxication,	1	1	2
Pseudoparesis,	2	—	2
Alcoholic delusional,	8	1	9
Morphinism and other drug psychoses,	5	1	6
Senile psychoses,	25	38	63
Presenile psychoses,	7	23	30
Involutional insanity,	—	25	25
Dementia præcox,	181	181	362
Paraphrenia,	10	9	19
Manic-depressive insanity,	76	95	171
General paresis,	73	21	94
Cerebral syphilis,	8	2	10
Neurosyphilis,	8	7	15
Friedreich's ataxia,	1	—	1
Epileptic psychoses,	27	15	42
Arteriosclerotic brain disease,	29	11	40
Imbecility,	3	2	5
Chorea,	—	3	3
Symptomatic psychoses: —			
Unclassified,	3	—	3
Meningitis,	3	—	3

Provisional Diagnosis in Temporary-Care Cases — Concluded.

	Males.	Females.	Totals.
Symptomatic psychoses — <i>Con.</i>			
Cardiorenal,	1	—	1
Uremia,	—	1	1
Multiple sclerosis,	—	2	2
Diabetes,	1	—	1
Hyperthyroidism,	—	1	1
Pernicious anæmia,	2	1	3
Pellagra,	1	—	1
Infection psychoses,	—	1	1
Traumatic psychoses,	2	2	4
Psychoneurosis,	2	—	2
Organic dementia,	10	5	16
Not insane,	191	230	421
Unclassified,	43	38	61
No diagnosis,	1	2	3
Totals,	841	760	1,601

II. PROBLEMS OF HOSPITAL MANAGEMENT.

Commendable further progress has been made in working out the principles of the Psychopathic Hospital management. The uniqueness of our problem is not understood even by specialists in the field, as is sufficiently emphasized by countless inquiries made by medical and administrative officers from all parts of the country. Hence, as in previous reports, it seems worth while to throw these problems into as clear relief as possible.

The Psychopathic Hospital in Boston must be classed with institutions dealing with cases that are not legally insane, a large fraction of which may never be adjudged insane in the sense of the judge of probate. The State of Massachusetts and the city of New York have apparently the only governmental systems for handling the temporary-care group, which forms the major part of the problem of the Psychopathic Hospital in Boston. In particular, the work of the Psychopathic Hospital in Boston and that of the psychopathic ward of Bellevue Hospital in New York is identical. The State of Massachusetts

has, however, added to the devices for handling temporary-care cases several other factors of the greatest importance in mental hygiene. The Psychopathic Hospital attracts great numbers of voluntary admissions, who are in many instances never committed and in many instances not even conceivably committable from the standpoint of the judge of probate.

Another factor of service in mental hygiene is the out-patient department, which not only receives many cases from public, semi-public and private sources, but also many cases resorting on their own initiative, for classification and treatment. An important feature of this out-patient situation is that only about one in four of these out-patient cases is found to be a hospital case, in the sense of a person needing prolonged examination or safekeeping in the wards. Besides providing facilities for the temporary-care group, the voluntary group and the varied out-patient group of patients, the Commonwealth of Massachusetts has provided facilities which make the Psychopathic Hospital a center of instruction and investigation. The State Board of Insanity has appointed special officers, working largely from the Psychopathic Hospital as a base of operations, which appointments have added much to the scope of the Psychopathic Hospital in mental hygiene, social service, graduate and undergraduate medical instruction and investigation. In fact, the Commonwealth of Massachusetts has in this regard taken one of the most advanced positions to be found in any State of the Union. Similar conditions are to be found only in a few States, *e.g.*, New York, Michigan, Illinois and the District of Columbia. In other States, at the present time, the general psychiatric or psychopathic situation is either undeveloped or has been developed more or less irregularly by the enterprise of a few men only.

The multiplicity of tasks indicated in the above paragraphs rendered it certain from the outset that an increasing amount of work would fall upon the heads of the institution. Happily, arrangements were finally consummated, taking effect on Aug. 21, 1915, by which an administrator was appointed, namely, Dr. Elisha H. Cohoon, who came from an extensive State hospital experience, culminating in work of special interest in the psychopathic ward of the Rhode Island State Hospital, to

take a position at the Psychopathic Hospital, in many respects not secondary to that of any post in the whole State hospital system. This appointment at once freed the director from multifarious duties which had been carried on to the detriment of more specialized work in classification, treatment and hygiene of mental diseases.

The relations of the writer to the administrator are amply presented in the regulations of the trustees, as follows: —

The psychopathic department shall be managed by the administrator under the general supervision of the superintendent and in accordance with the director's policy and plans. The administrator shall make reports to the director for transmission to the trustees concerning matters of hospital management, and the director shall add such report on matters of treatment, investigation and policy as he may see fit. Officers shall be appointed by the superintendent, with the approval of the trustees on nomination of the director.

It is worth while to emphasize that these arrangements are proving entirely satisfactory and may, with few modifications, be likely to serve as a model for future developments in these directions.

A word is again necessary as to the meaning of the term "psychopathic hospital." For various reasons the term has become so attractive in propaganda that a comparatively large number of institutions of whatever scope have been founded or recommended to receive the term "psychopathic hospital," "institute," "department" or "ward." Thus there is developing a tendency in State hospitals to denominate the receiving ward "psychopathic." There can be no advantage in this designation other than that of calling old ideas by new names. The idea of the receiving ward for committed cases destined to receive the ordinary probate court group of cases is not altered or improved in any manner by the designation "psychopathic." To be sure, all conceivable kinds of hospitals for mental disease and disorder, including the probate court group itself, may perhaps properly receive the term "psychopathic," — thus an institution for epileptic idiots is in one sense a psychopathic unit, and in the same sense, at the other end of the scale, a dispensary for mental cases in a general hospital or a properly elaborated probation service may be termed "psychopathic."

The advantage of using the term in such a broad way for some purposes is obvious, but there can be no advantage in terming a receiving ward of the ordinary well-recognized and familiar type a psychopathic ward. The best opinion seems to be that a psychopathic hospital or institute shall be an institution in which all types of mental cases, from the probate court group on the one hand up to the most dubious and difficult cases of mental disorder on the other, may be examined; but if an institution is primarily or chiefly concerned with patients of the medicolegal, committable or custodial group, to serve merely as a vestibule through which committed cases pass, such an institution has by no means the broad scope which the very general term "psychopathic" implies. The patients of the metropolitan district who are obviously committable are sent at once to the main departments of the Boston State Hospital. To be sure there has been a tendency on the part of certain physicians in the community to utilize the Psychopathic Hospital as a vestibule for the readier access of obviously committable cases into the custodial departments. Something might be said for this usage of the Psychopathic Hospital as a vestibule for custodial patients. If the process of passage through the Psychopathic Hospital were not so expensive, much more might be said for the vestibule idea, but the Boston State Hospital main departments, like practically all the high-grade institutions for the committable group of patients, possess perfectly adequate facilities for the reception of the committable group, and very probably under somewhat less expensive conditions. I say "probably," because it is difficult or impossible to tell just how expensive the reception arrangements in a large State hospital for the committable group of the insane really are. Such expenses cannot, of course, be stated at the per capita rate of the institution at large. The Psychopathic Hospital authorities, properly supported by the State Board of Insanity, have as far as possible opposed the usage of the Psychopathic Hospital as a vestibule through which obviously committable cases pass. Though there may be practically some exceptions to this rule, theoretically and in a large measure the institution is properly termed "psychopathic" in that all kinds of mental disease are examined therein, — the

numerical emphasis being laid upon the temporary-care group and the voluntary group, namely, cases which are often both practically not committed and theoretically not committable.

It may well be conceived that the handling of all these cases involves a host of practical medicolegal problems which need an officer or officers of high rank, great knowledge and practical skill to work out. We have practically found that at our rate of intake of patients, we require not only an administrator of rank and training, but two other medical officers as well, whose time is practically entirely taken up with delicate medicosocial and medicolegal problems. Since the Psychopathic Hospital presents a receptive rather than a forbidding attitude to the public, and since it must be our program to attract as many cases of mild and incipient mental disorder as possible, for the sake of the mental hygiene of the community, it can be seen that the task of these administrative officers is no easy one. Practically every other institution in the community has definite rules by which certain great classes of patients may be excluded from reception. These rules may be traditional, they may be matters of trustees' regulations, and they may be municipal or State regulations. There may be rules in such institutions for the exclusion of persons under a certain age, of subjects having syphilis, of the subjects of chronic alcoholism, of indigent cases, or of reimbursing or rich cases, and the like. The Psychopathic Hospital has few or no such regulations, unless the laws which prevent the hospital from being turned into an institution for delirium tremens and drunkenness (only one-ninth of our problem of intake is in any sense alcoholic) may be so regarded.

It is extraordinary to consider how few medical problems that come up in our community fail to exhibit important or fundamental psychopathic relations. Under some formula or other, almost any case of physical or social defective might be thought to be suitable for reception in a psychopathic hospital, since although much is known as to the form of mental disease (the "psychoses"), and a good deal is known of numerous mental disorders and disturbances which fall short of recognized forms (the so-called "psychopathies"), and a little is known of the borderland conditions (the "neuroses"), and since many of

these borderland conditions do not patently differ from more or less normal emotional reactions, it can easily be seen that such defective social and physical conditions as those recognized by the census of Massachusetts in 1905 have a more or less important psychopathic side. The classification of the census of Massachusetts in 1905 recognized the following classes of defectives: (a) physical defectives (acutely diseased, blind, chronically diseased, consumptive, deaf, deaf and dumb, dumb, deformed, lame and maimed); (b) social defectives (prisoners, paupers, juvenile offenders, neglected children, insane, feeble-minded and epileptic). There are few of these classes of physical and social defectives of which we have not had examples at the Psychopathic Hospital, — true examples, in the sense that the classified condition was really responsible in some fundamental way for the psychopathic condition found. The out-patient department has been especially the place where instances of physical defect having psychopathic results have been found. This group of the physically inadequate having psychopathic features threatens to become of increasing importance, and to be an important field of study for social service workers, who, though aware of the psychopathic side of their problems, have not hitherto had a special training therein.

Enough has been said to indicate roughly the differential character of the Psychopathic Hospital's work in respect to the temporary-care group, the voluntary group, and what may be termed the mental hygiene group proper.

Something should now be said as to our progress in the internal economy of the institution, particularly on the medical side. We have particularly aimed at the ideal of establishing standardized environments (to use a phrase coined by Dr. H. M. Adler) in the different wards in the hospital. There has developed a particular atmosphere on the receiving wards for males and females, the acute wards where the somatically ill and the hydrotherapeutic groups belong, and the observation wards for milder cases. Moreover, these three types of environment have been still further subdivided owing to the careful manner in which the hospital was planned. Possibly more space should have been afforded for hydrotherapy,

inasmuch as the arrangements, though apparently ample, did not originally contemplate our increased use of hydrotherapy for therapeutic uses in certain quiet cases as well as for meeting the emergencies of violent cases. In short, perhaps we did not in the beginning recognize that hydrotherapy was to be as much a matter of treatment as a matter of care. Possibly there should be more rooms and accommodations for violent cases, though with the increasing use of the reception wards at the main hospital for obviously committable cases, the need of such additional accommodations at the Psychopathic Hospital may not remain so great. With these exceptions, the planning of the hospital seems to have been successful so far as can be proved by our experience, which now runs to over 5,000 individual cases.

The progress that has been made in internal management of the hospital is interesting by reason of its complexity and its relative success. The superintendent has a general supervisory and advisory relation to the hospital, retaining a more direct control of the engineering department and the steward's department, although since the appointment of the administrator in August, 1915, the latter departments have come under practical control of the administrator.

From the point of view of the patients, the hospital is divided, though not at all sharply, into the medical and executive services. Under the executive service may be counted the nursing force, the matron's department with the cooks and maids, the orderlies and the clerks. The executive service comes into direct relation to the outer world, paying due attention to legal formalities in connection with the admission and discharge of patients and the entire physical plant of the institution. The duties of the heads of the executive service (the administrator, Dr. E. H. Cohoon, with two medical assistants) are onerous, but not the less interesting. They form, in fact, the backbone of our approach to the general problem of mental hygiene from the standpoint of the public. They must carry through legal formalities in such manner as to comply with the law and with the regulations of the State Board of Insanity, and yet their demeanor and reactions must not partake of the austere and forbidding nature of many of the old-time institutions.

A rough calculation seems to show that dealing, as we do, with over 3,000 patients all told (that is, including house and out-patients), the members of the executive service come into contact with at least 10,000 personalities during the course of a year. Inasmuch as the majority of the problems are entirely dubious at the outset, from the standpoint of the individual, the law and social service, it can readily be seen that few known institutions of whatever sort can be found serving the public in any connection whatsoever which approach the Psychopathic Hospital in its peculiar combination of extensive and intensive responsible public endeavor. The greatest single achievement of our institution during 1915 has been the establishment, upon proper lines, of the executive service. Some remarks upon this service will be made elsewhere in this report by the administrator. It can safely be said that no institution of this sort can ever in the future attempt to combine the functions of administrator and director. If such attempt be made, the result will be sure to be a degeneration into routine. The problems of mental hygiene which the Psychopathic Hospital, dealing chiefly with noncommittable cases, has to face, cannot safely be treated as matters of routine.

The medical service consists of at least five subdivisions, no one of which can be dispensed with. These subdivisions are: (a) the ward work, (b) the out-patient work, (c) the clinical laboratories, (d) the psychological test work, and (e) the social service.

There are signs that a department of investigation, dealing with certain social, hereditary and other forms of inquiry into the history of patients and their relatives, may become separated out into a main subdivision of the medical service.

The problems of the out-patient department and of the social service are dealt with in section IV. The problems of the laboratories, medical and psychological, are dealt with in section III. The remainder of this section will be devoted to a brief analysis of the medical service.

The medical service, under the general direction of the director, is under the practical direction of the chief of staff, who, besides exercising the functions of a clinical director

(according to the New York usage of this term), has important functions in connection with the clinical laboratories and the out-patient department and social service. Between the director and the chief of staff, the theory of our management has been that no important case shall escape individual expert attention. The list of special cases to be seen by the director or by the chief of staff (practically speaking, a moiety to each) is as follows: —

- Cases under section 43, chapter 504, Acts of 1909 (commitments pending determination of insanity).
- Cases under section 103, chapter 504, Acts of 1909 (commitments under indictment).
- Cases under section 34, chapter 504, Acts of 1909 (commitments pending examination and hearing).
- Cases under section 42, chapter 504, Acts of 1909 (emergency five-day commitments without court order).
- Cases referred by Industrial Accident Board.
- Cases referred by United States Immigration Service.
- Juvenile cases.
- Cases sustaining reportable accidents.
- Cases with serious family controversy.
- Cases about which serious complaints are lodged.
- Specified problem and research cases.

With respect to this list it is fortunate that the amendment by which the seven days' temporary care was lengthened to ten days' care has reduced the number of emergency five-day commitments without court order (section 42, chapter 504, Acts of 1909).

The appointment of the administrator has rendered it unnecessary for the director or the chief of staff to deal with reports of minor accidents to the State Board of Insanity. Moreover, the establishment of the executive service has curtailed the number of cases in which serious family controversy has interfered with the success of the Psychopathic Hospital in dealing with the cases in hand. It seems clear, also, as I am informed by the State Board of Insanity, that the number of cases in which serious complaint has been lodged has been reduced since the enlargement of our service.

The detail of management of our cases is accomplished by means of a division of the house medical service (nonadminis-

trative) into a system of four services at present. At the head of each of these four services is an assistant physician of some experience. Under these four assistant physicians of experience, are junior assistant physicians, one to each service, who are graduates in medicine but not necessarily of psychiatric experience. Connected with each service are also two internes, who may or may not be graduates in medicine. These internes, when not graduates of medicine, are medical students, and, where they have to do with clinical matters, students in the third or fourth year of medical schools of recognized standing. This means that each service has two medical graduates, one of whom has had psychiatric experience, and two internes. Each of the heads of the four medical services serves in rotation as officer of the day. On the day in which the assistant physician so serves, his entire service is on house duty during the twenty-four hours in question, and each of the other three services is represented by at least one member, who is on call for information concerning cases on his service during the day. The officer-of-the-day system, or an equivalent thereto, was rendered necessary by the large number of admissions (4 or 5 daily), and the peculiar nature of mental disease, presenting as it does a number of unexpected situations or emergencies daily. The practical result of this system is that at all times, day and night, there are on duty at least seven persons with more or less medical experience, namely, five physicians and at least two internes. These at present consist of one assistant physician, one junior assistant physician, two internes from service I., II., III. or IV., and three other physicians representing each one of the other services.

The problem of receiving between 120 and 160 patients a month, the majority of whom are admitted under "temporary-care" conditions, is a difficult one, provided we have not merely extensive but intensive ideals in mind, especially the modern ideal of a proper individualization in the care and treatment of the case. When a patient is brought to the hospital, he comes to the admission office and the admitting blank is filled out. The admitting physician notes the patient's general appearance and conduct, and secures a preliminary history from those accompanying the patient. The patient is assigned to the

service next in rotation and is taken to the ward, where he receives a cleansing bath and his clothes and property are listed. Meanwhile the service to which he has been admitted has been notified, and the admitting officer makes a preliminary physical examination to determine whether the patient is suffering from severe physical illness, whether he is in need of immediate therapeutic measures, and whether he shows any marks or injuries. If there is any sign of serious or dangerous illness, the chief of staff is notified, and a written record of such notice is preserved. If the patient happens to be dangerously ill, his name is placed on the dangerous list and notification to this effect is sent to the executive service and the director, and his name is posted as on the dangerous list, whereupon the executive service at once arranges to notify the friends and relatives, and in case the patient is Catholic, a priest is summoned.

If the patient is discovered to have serious injury on admission (fracture, dislocation, etc.), the executive service is notified at once, and a written record is preserved of this notification. The patient is then formally examined by the physician of the service to which he has been assigned, and he is formally presented before the staff on the morning rounds of the morning succeeding his entry to the hospital. Upon this morning visit all information at hand is read. The director or the chief of staff, as the case may be, outlines any special investigation to be conducted, in addition to routine examinations in the case, and special indications of treatment are outlined. Full physical and mental examinations are made; intelligence tests are applied if these are thought desirable and possible of execution; a specimen of blood is taken from a vein for a Wassermann test. In case the report on the blood be positive, the examination of the spinal fluid is made.

Again on the fifth day after admission, the patient is once more presented on the morning visit by the physician in charge of the medical service to which the patient has been assigned. At this presentation, the complete examinations, consisting of the history, with the results of social service investigation, complete physical examination and complete mental examination, with mental tests (routine or special), are made available. The provisional diagnosis is made, discussion by the rest of the

staff follows, the opinions concerning the case are recorded according to the vote of the staff, and the result is deemed to constitute a provisional diagnosis. At the same time the future disposal of the patient is considered, whether commitment, discharge, change of status, and the like. Further tests are suggested for clearing up the diagnosis, in case this is necessary.

Cases of unusual importance, like many of those listed in the above list of special cases, are presented at the noon conference from 12 to 1 o'clock. The morning rounds begin daily, except Sundays and holidays at 8.10 A.M., lasting usually for an hour and a half. The entire staff, so far as available, attends these rounds.

The officer of the day has responsibility incident to his own service, with those responsibilities added which concern the admitting of patients and the meeting of emergencies of various sorts in the wards. The officer of the day makes evening visits, visiting every patient in the hospital, prescribing cathartics, cough medicines, or other ordinary forms of treatment. He is accompanied on this evening visit by a representative from each of the other services, who make him aware of any special needs of the patients upon those services.

The assistant physician at the head of each service distributes the work to the different members of his service, and is responsible for everything occurring in connection with patients assigned to him. The junior assistant physician is a graduate in medicine. In practice, he is rather apt to be a man taking the regular course required by the State Board of Insanity of candidates for appointment under the State Board. This is usually for a period of three to six months. Physicians on leave of absence from other State institutions, for supplementary training, are often assigned to such work. The internes are employed either on full time or on half time, averaging at least four hours of work a day, serving as clinical clerks, performing routine mental examinations or mental tests, or special laboratory work, under the direction of the assistant physician. We have been able to secure internes of unusual skill through what the medical student considers a liberal offer of board and lodging for half-time work. If the hospital should not make such an offer, it is a large question whether any internes except

"left-overs" would, in the present phase of the development of psychiatry, be available for the Psychopathic Hospital. This is due to the fact that Boston is supplied with so many general hospitals of high grade that few medical graduates, except the least promising, fail to secure general hospital service as house officers. At the conclusion of this service they are, as a rule, unwilling to spend another period in a hospital dealing with mental disease. Moreover, the outlook for the future at \$600 per annum, with slow increase, naturally does not seem to the young medical graduate of the present day an outlook which is comparable with that in other competing lines.

The problem of nursing is in a still more satisfactory state than during 1914. The picture of nursing work during a month is effectively conveyed by the following table: —

Report of Nursing Work in November, 1915.

	WARDS.						
	A.	B.	II.	III.	IV.	V.	Total.
Baths, tub,	121	98	353	374	137	225	1,308
Baths, bed,	12	55	66	98	31	26	288
Baths, shower,	—	—	—	—	372	—	372
Baths, continuous,	—	—	179	126	—	—	305
Wet packs,	—	—	26	43	—	—	69
Medicines,	33	180	105	71	149	87	625
Cathartics,	8	15	31	49	36	79	218
Hypodermics,	—	4	12	4	—	—	20
Enemata,	5	24	24	75	11	77	216
Proctoclysis,	—	—	—	3	—	—	3
Tube feedings,	—	—	18	—	—	—	18
Interstitial saline,	—	—	1	2	—	—	3
Dressings,	—	—	78	8	14	—	100
Eye irrigation drops,	6	—	9	8	3	9	35
Throat sprays, gargles, etc.,	1	—	6	9	3	10	29
Breasts treated,	—	2	—	8	—	—	10
24 hour specimens urine,	3	32	24	8	2	2	71
Specimens sputum,	1	7	6	4	2	2	22
Specimens stool,	1	2	9	6	—	3	21
Alkali retention tests,	—	1	—	—	1	—	2
Sugar retention tests,	—	1	—	—	—	5	6

Report of Nursing Work in November, 1915 — Concluded.

	WARDS.						
	A.	B.	II.	III.	IV.	V.	Total.
Metabolism tests, salt or uric acid,	-	2	2	-	-	-	4
Stomach lavage,	-	6	-	-	-	-	6
Test meals, gastroanalysis,	-	4	-	-	-	-	4
Catheterization,	-	8	15	2	-	-	25
Bladder irrigation,	-	26	2	-	-	-	28
Special diets,	4	12	24	-	-	30	80
Aspirations,	-	-	-	-	3	-	3
Preparation for abdominal operations,	-	-	1	-	-	-	1
Massage,	-	-	-	21	12	-	33

The following table shows daily average nursing service for month of November, 1915: —

Average number of female nurses and attendants on duty daily,	25 $\frac{1}{30}$
Average number female nurses and attendants ill or absent daily,	5 $\frac{9}{30}$
Average number male attendants on duty daily,	14 $\frac{1}{30}$
Average number male attendants ill or absent daily,	1 $\frac{28}{30}$

Two pupils of the original training school were graduated during the year on completion of a two years' course here, and six months' course at the Boston City Hospital.

The following table shows the number of persons in the ward service: —

Report of Nursing Service, Dec. 1, 1915.

Complete ward service consists of —

Superintendent of nurses,	1
Assistant superintendent of nurses,	1
Supervisor (male),	1
Assistant supervisor (male),	1
Night supervisor (female),	1
Night supervisor (male),	1
Graduate nurses,	12
Attendants (female),	17
Attendants (male),	17
Masseuse and hydrotherapist,	1
Ward maids,	5

Female nurses or attendants on male ward,

In the reports for 1912 and 1914 I presented a small statistical study showing the time spent by nurses and attendants in pursuit of their various duties. It can be seen by the following table that the standards of 1914 have been slightly though very slightly, improved.

	HOURS.		
	1912.	1914.	1915.
Nursing duties,	24	35	36
Domestic duties,	23	15	14
Executive duties,	12	11	10

I wish to commend especially the efforts of the superintendent of nurses, Miss Gertrude P. Garvin, who has acquitted herself well in a position always of extraordinary difficulty.

I cannot forbear mentioning that the developments of the house service, although a product of many minds and of much adaptation, are largely due to the logical efforts of the chief of staff, Dr. H. M. Adler, whose practical experience in general hospitals (both medical, surgical and pediatric), in clinical laboratory practice, in general practice, as well as in Danvers Hospital for the Insane, has given him a broader range of knowledge as to the clinical methods in hospitals than has fallen to the lot of most physicians. Special value has accrued from his having worked both in American and in continental hospitals. Much of our efficiency system in the Psychopathic Hospital may therefore be said to be drawn from a composite of American and continental experience.

I wish to express at this point my appreciation of the co-operative effort and initiative spirit displayed by the administrator, Dr. E. H. Cohoon. I have already mentioned above the general importance of this appointment, which has been proved as personally satisfactory to the entire staff as it has been satisfactory from the general administrative point of view.

I am obliged to the superintendent, Dr. Henry P. Frost, for his unfailing courtesy in all matters and his advice in a number of difficult situations.

It goes without saying that the Board of Trustees have exerted every effort on behalf of all of our officers, despite the fact that the hospital has had to pick its way through difficulties in most respects entirely novel in the State hospital system.

III. MEDICAL AND SCIENTIFIC PROBLEMS OF THE YEAR.

The publications listed in section VII. indicate the tendencies of our work. Analysis of the general nature of the publications of 1914, issued in the form of a volume of bound reprints during 1915, is as follows: —

(a) On medical diagnosis,	8
(b) On medical treatment,	11
(c) On mental hygiene,	6
(d) On mental tests,	2
(e) On psychiatric theory,	2

It is exceedingly difficult, if not impossible, to tell exactly where the labors of the director of the Psychopathic Hospital on investigation leave off and the duties of the pathologist to the State Board of Insanity begin. Add to this the fact that the pathological service, supported by the State Board of Insanity (with Dr. Myrtelle M. Canavan as assistant pathologist, and a technician and a stenographer), uses the laboratories as a base of operations, and it will be seen that the union of aims on the part of the investigative service of the State Board of Insanity and the special work of the Psychopathic Hospital is an intimate union. Under section VII. are given the titles of publications during 1915. The list includes those of the director of the hospital and those of the pathologist to the State Board of Insanity, since they cannot well be separated.

The most important achievement of the hospital is the publication of Psychopathic Hospital Monograph No. 1, being "The Point Scale," by Prof. Robert M. Yerkes, psychologist to the Psychopathic Hospital, with the assistance of Mr. J. W. Bridges, Ph.D., who was interne from Oct. 1, 1913, to July 1, 1914, and Miss R. S. Hardwick, Ph.D., who was interne from July 1, 1913, to June, 1914.

I am informed by Professor Yerkes that the principle of the point scale must undoubtedly be eventually accepted by all workers, and that the scale for young subjects and for adolescents may be regarded as reasonably successful. He is at present at work upon a more universal scale, which will be of service for the adult. We have practically used the scale in hundreds of cases, and have carried out the Binet scale upon the majority of these, so that comparative studies of these two methods are available. Particularly interesting has been the use of the multiple choice method. It is interesting that, at the suggestion of Dr. H. M. Adler, the mental tests and the multiple choice method of Yerkes have been used in connection with the examination of candidates for positions as nurses, attendants and other subordinate positions. We have been able by means of these tests to eliminate a number of undesirables. It is probable that civil service commissions and other public bodies having to rate individuals as to their capacities may find it to their advantage to resort to such methods.

Further work upon delirium and excitement has continued, but progress upon a monograph dealing with the topic of the treatment of delirium was delayed on account of the serious illness of Dr. Adler, who was off service from April 20 to Oct. 1, 1915, with the exception of a few weeks in June and July. This problem naturally remains one of the most important of our practical problems.

We have, however, found that the problem of brain syphilis has come more and more into the foreground. This has been largely due to the development of new methods as the result of Ehrlich's discovery of salvarsan, although not all the available methods employ salvarsan itself. The activities of Dr. H. C. Solomon, assistant physician, in this direction have been commendable, and have resulted in his appointment Nov. 15, 1915, to the position as investigator of brain syphilis under the State Board of Insanity. His work upon systematic lines, using all available methods which have any apparent show of success, will go on during the year 1916. A conference upon the subject of syphilis was held May 27, 1915, and was devoted to medical, social and anatomical matters, perhaps the most

important of which were Dr. Solomon's contributions concerning the gold sol test, and concerning the results of special treatment in a group of cases.

Dr. Adler's work has been more or less interfered with by his illness, but chemical studies have continued upon urea and urea nitrogen of the blood and cerebrospinal fluid. An expert chemist, now taking a medical course, Mr. J. B. Rieger, has done special work upon sugar in the spinal fluid. A continuation of the studies of Grabfield, with the Martin test for determining the threshold of sensibility to Faradism, has enabled a number of papers to be prepared, carrying forward the results of 1914. The practical importance of this test in determining sensory dulling in alcoholic cases is large. Tentatively, also, we seem to be certain of the heightening of the threshold in depressive cases of manic-depressive psychosis. Should this finding be confirmed by long experience, it would be a matter of great importance, since the early differentiation of the depression of manic-depressive psychosis from the depression of neurasthenia, the apparent depression (apathy) of dementia præcox, and more or less normal sadness, is difficult enough on purely clinical grounds.

Note is made under section VII. of the papers of the third annual conference, which will give sufficient idea of the general plan of our attack on psychiatric problems. Dealing as the Psychopathic Hospital does with practically all the psychopathic conditions with which the State Board of Insanity has official contact, together with numerous problems of alcohol, it has been our plan to deal in a succession of conferences with the major local aspects of each problem on the basis of which to go forward to new work. We have so far held conferences upon alcoholism, nursing and syphilis, and in three annual conferences have dealt with the general medical and social aspects of our work. We contemplate conferences upon heredity and eugenics, upon social service and upon mental hygiene.

The matter of getting our more strictly technical work before the medical and scientific public is attended to by a liberal, but I believe not too liberal, policy on the part of the trustees, the State Board of Insanity, and the Governor and Council, in sending representatives to selected scientific bodies.

Last year the important practical question whether the State needs an institution for the psychoneurotics was mentioned. We have no further data in shape for the decision on this question, although several pieces of work have been done in this direction, notably by Dr. Gregg.

Studies have been continued upon the accuracy of diagnosis in the different forms of mental disease.

The director has continued his personal researches in the direction of the anatomy and histology of dementia præcox, and has made some observations in connection with internal hydrocephalus as displayed in the brains of patients having so-called functional (manic-depressive) or degenerative (dementia præcox) disease, finding that the ventricular dilatations are more frequent in cases given to excitement.

A great deal of preliminary work has been done upon the question of delinquency. Particularly fruitful is the study in the Psychopathic Hospital of a group which we may term "potential delinquents." Some studies of the brains of executed criminals are also in process. A somewhat lengthy monograph upon the anatomy of the brain in feeble-mindedness, involving careful photography and anatomical study of 10 brains, with microscopic studies of certain areas, has been prepared by the director with the assistance of Dr. Annie E. Taft, working for the Waverly School for the Feeble-minded. Like many other pieces of work in progress, these studies are not strictly Psychopathic Hospital studies, but their results of course often depend upon or are determined by Psychopathic Hospital considerations. Accordingly it may be said that for these and other reasons the Massachusetts institutions are beginning to present a far more unified front in the development of scientific psychiatry than could have been hoped some years ago. In this unification of scientific front, the Psychopathic Hospital has had a large and is having an increasing share.

IV. SOCIAL PROBLEMS, ESPECIALLY IN THE OUT-PATIENT DEPARTMENT.

Mental hygiene, social service and the out-patient work are all overlapping, though distinct branches of the hospital work; thus the term "mental hygiene" may be considered to be in

one sense descriptive of the entire work of the hospital, but the after-care and prophylactic divisions of mental hygiene are more closely related with social service and with the out-patient department than with the house service. Again, social service is by no means confined to out-patients, but it is of the utmost value in securing histories and estimates of environmental situations as well as in the execution of measures for the advice and relief of the families of patients. Social service workers are the mediators between the physicians and the patients and their families after discharge, and they have many mediating functions between physicians, heads of institutions, probation officers, judges, school teachers, heads of social agencies and the like. Practically all the functions of social service, as defined by Dr. Abraham Flexner in his Baltimore address at the National Conference of Charities and Correction, are exhibited in our work. Again, the out-patient department has distinct medical and psychological as well as social functions, but it presents the most effective base of operations for after-care and prophylactic workers.

The out-patient department was first developed under Dr. (now Prof.) W. P. Lucas, but after his departure for California, the work was managed by Dr. A. W. Stearns until June 13, 1914, whereupon (somewhat to the detriment of the entire work of the hospital, but as a result of the compulsions of a straitened budget) the work devolved upon the chief of staff, Dr. H. M. Adler. However, beginning Nov. 15, 1915, Dr. A. W. Stearns has returned from his work with the State Board of Insanity to the position in the out-patient department at which he is daily present. His experience in out-patient organization throughout the State must prove of the utmost value in developments at the Psychopathic Hospital.

The work of the out-patient department may be said to fall roughly into four classes: —

First. — The out-patient medical, psychological and social examiners have to deal with questions of feeble-mindedness and mental defect, especially with the mentally defective delinquents referred from courts, reformatories or other institutions, including an increasing number of backward children from schools.

Second. — The out-patient department handles psychiatric cases, both patients discharged from the Psychopathic Hospital and from other State hospitals (those who have a residence in or near Boston who can most conveniently resort to the Psychopathic Hospital, out-patient department). Also there is a certain number of patients who have never been in a hospital, but still require treatment for mild or incipient mental troubles of a noncommittable nature. The problems here are both those of after-care and of prophylaxis. Psychoneuroses, occupation neuroses and mild psychoses with preservation of insight on the part of the patient, form an important class.

Third. — The out-patient department handles a good many somatic cases, cases that require physical treatment of various sorts in connection with diseases of the nervous system. The largest class falling thereunder is that of the neurosyphilitics, a great number of whom are physically fit for ambulatory treatment.

Fourth. — There is a group of cases that are, more narrowly speaking, cases of the social service group, requiring aid chiefly from the community's point of view. We here deal with cases suffering from the effects, pre-eminently, of poor housing, poverty, desertion, and the like, all of which evils are based upon or laid down upon the background of mental inadequacy.

To handle these conditions, the out-patient department performs roughly three types of service, — service of the medical and psychiatric nature, the psychological department, and the social service department, — but inasmuch as it can hardly be said that a case of feeble-mindedness can be settled by the psychologist alone any more than it can be settled by the social service worker alone, or by the alienist not employing quantitative tests, it turns out that all three of these subdivisions of our out-patient work have to be employed in a large fraction of cases. Our out-patient department has been managed on the principle that the decision as to the disposition of the case in hand must be rendered by the psychiatrist, who, if he has a proper conception of the definite values of the psychologist's work and of the concrete values of social work, can, by means of his own better trained insight into medical conditions, more properly outline a future for the patient.

This does not mean that the psychopathic hospital physicians feel as yet entirely able to cope with the problems presented. They are particularly unable to cope with many of the so-called defective delinquents, notably those who are not of subnormal intelligence, are not epileptic, are not psychotic, are not even psychopathic, but are suffering from character anomaly of a predominantly emotional nature which has brought them to the hospital. We do not find that a proper estimate of the prognosis, either in general or in detail, of cases of epileptic or schizophrenic (*dementia præcox*) nature is at all well understood either by the nonmedical psychologist or the nonmedical social worker. Our point of view is that we take the social service work so much for granted and indispensable that we may be permitted to point out a number of its deficiencies. These deficiencies by no means debase the dignity of social service any more than our assertion of similar deficiencies on the part of the psychologist should be taken to lower the dignity of psychology.

The out-patient head is accordingly a physician who has for assistants a number of volunteer physicians. These are men who, as a rule, have had Psychopathic Hospital training or have come sufficiently in contact with the Psychopathic Hospital aims (through staff rounds, staff meetings, and the like) to be able to hold the work to a certain standard.

We have recently made some endeavor to have cases of certain types come to the hospital on certain days, — thus Dr. Frankwood E. Williams of the Massachusetts Society for Mental Hygiene comes on a certain day in the week to meet especially cases of manic-depressive psychosis and of *dementia præcox* for observation and after-care. Correlated with his work is that of Dr. Grabfield, also formerly connected with the Psychopathic Hospital as interne and now working under Prof. Reid Hunt in the pharmacological department of Harvard Medical School, who makes special examination with the Martin test in connection with some hypotheses concerning manic-depressive psychosis.

The sorting process in the out-patient department is done by the clinical manager, who serves, so far as possible, as clinical historian for the out-patient department. The department has

developed so rapidly that it would seem necessary shortly to have a clinical manager distinct from the clinical historian.

Meantime it is very important that the house service should come into close contact with the out-patient work, not only because numerous after-care cases discharged from the house come to the out-patient department, but also because no more valuable experience can be got than the out-patient experience when it comes to a question of establishing standards of examination for the psychoneuroses, neuroses, and the like.

The social service has measurably developed during the year. Miss Jarrett, with her paid worker, another volunteer assistant, four unpaid workers in training and two workers privately paid for special kinds of work, has been able to develop the social service in a surprisingly effective manner. The work would seem now to be ripe for State-wide extension, and it may be hoped that district social service throughout the State will shortly develop with a State Board commissioner at its head. We may divide our cases into the intensive group and the "slight service" group. In the intensive group the social service attempts to assume responsibility for making a full inquiry into the social condition of the patient and his family, and endeavors to secure the largest measure of social well-being possible for both the patient and family. During the year, 262 cases were dealt with in this intensive manner, and there were 67 still under care at the end of the year.

The "slight service" cases may be defined as those in which assistance is given without inquiry beyond the apparent facts, or responsibility beyond the immediate service. There were 961 cases thus dealt with during the year. We have tried to analyze the work in our first 500 intensive cases, extending from 1913 through 1914 as well as 1915, finding that 51 per cent. of these cases could be regarded as community cases requiring supervision and care, 33 per cent. as cases requiring history for diagnosis, 9 per cent. as cases requiring assistance to the family, and 7 per cent. as requiring arrangements for admission to other institutions.

One of the most important indices of efficiency of social service is the follow-up division thereto. Of 1,504 patients falling due to report at the Psychopathic Hospital for various

reasons, we found that 687, or about 46 per cent., reported without reminder, 486, or 32 per cent., reported with reminder, and 331 were lost or regarded as lost to social service at the end of the year. Of 40 patients referred by State hospitals for the insane for after-care, 34 reported.

An important work which cannot be fully dealt with here is that of prophylaxis for the families of syphilitic patients. Forty-nine per cent. of the families responded to our suggestions. Two hundred and ninety-three patients were examined, of whom 56 proved to require treatment.

A committee on employment and after-care has financed the study of 100 patients from the point of view of their difficulties in employment and the question how far these difficulties may be referred to their mental troubles. Upon this a report is hoped for during the coming year.

The interesting Men's Club for alcoholics has had an average attendance of 12 at the monthly meeting.

A course of study and practice in psychopathic social service work has been constructed, occupying at the minimum six months. Some question arises among social workers in general as to whether the Psychopathic Hospital type of social service is especially distinctive from other types of social service. Social workers in general point out that all sorts of social service involve contact with psychopathic conditions of various sorts. This is undoubtedly true, nevertheless, we feel, as a result of our experience, that social workers without special training of the Psychopathic Hospital type are often at a loss in a variety of difficulties, notably those connected with epileptics and the dementia præcox group as noted above. In any case, if the field of social service is shot through with the necessity for psychopathic knowledge, the only conclusion can be that every social worker needs as a part of her training work in some institution like the Psychopathic Hospital. This is our conclusion.

Of course with a properly increased staff, we should like to secure a social examination for every patient on admission. We should like to be able to take care, from the social service point of view, of a larger proportion of patients, since we assume that 50 per cent. of admissions to the hospital need

such care. Naturally, we should be able to bring the follow-up service and the work in the prophylaxis of brain syphilis up to the higher level if more visiting were possible. Moreover, the Men's Club could be rendered more efficient if we had more visitors. We have made a beginning with the use of medical students as visitors for individual patients. However, for a variety of reasons, an increase in the amount of paid service is unconditionally desirable.

V. GENERAL AND MEDICAL EDUCATIONAL ACTIVITIES (CONFERENCES, MEDICAL CLINICS, SOCIAL CLINICS).

The educational value of various features of the hospital's routine has increased with experience, and a larger number of practitioners, students and investigators have benefited by the institution than ever before.

The staff rounds from 8 to 9.30 or 10 A.M. have been attended by an increasing number of practitioners and medical visitors. Medical students have been allowed to attend these rounds to the number of four at a time. The Psychopathic Hospital has so much the aspect of a general hospital that these rounds are taken as a matter of course by the physicians, nurses and patients, in such manner that no instance of real or apparent harm has come to the patients from the methods employed. About half of each morning exercise is devoted to the preliminary diagnosis of the patients who have arrived at the hospital, to the number of four or five, since the exercise of the preceding day. Work is laid out for each case in view of the available medical and social history. Even the experienced State hospital physician can obtain a much-needed addition to his training by means of the numerous new problems presented in concrete form in a far briefer space of time than is the rule in State hospitals for the insane. Moreover, of course, the vast majority of Psychopathic Hospital cases are doubtful, both as to the form of mental disease and as to the question of legal insanity.

The other half of the morning exercise is devoted to a review of the diagnosis of each case that has been in the hospital for five days. These fifth day diagnoses are, of course, only somewhat less provisional than those of the first day, but time has

elapsed for the Wassermann reaction and the data of general and special mental examinations, as well as for thorough physical examinations, to be obtained. As a rule, the data in a special case point to securing a few more facts or making another test or two, for which there is ample time before the practical decision needs to be rendered, on the basis of which the patient is to be discharged or committed at the expiration of ten days (the ten-day period is statutory under chapter 174, Acts of 1915, and is a matter of routine regulation under chapter 307, Acts of 1910).

Only the best and most thoroughly manned State hospitals keep their standards of rapid and intensive diagnosis up to the Psychopathic Hospital standard, so that the State hospital physician desiring a special training or review in methods can hardly secure such to better advantage than at the Psychopathic Hospital.

Accordingly, the educational advantages of the staff rounds, affording a glimpse into methods of rapid preliminary and provisional diagnoses, are practically unique in this country, since, so far as I am aware, no other clinic has the combination of the large intake of new patients and standards of intensive diagnosis and treatment.

In contradistinction to the morning staff rounds, the daily noon conference is devoted not to routine cases but to special cases. One or sometimes two cases will appear at these conferences, and the problems presented are studied in a leisurely manner, with frequent recourse to the literature bearing on the special points involved.

As heretofore, much use has been made of the Kraepelinian classification of mental disease as presented in the latest edition, but this has been supplemented by reference to the more important monographs in Aschaffenburg's "Handbuch der Psychiatrie," especially Bleuler's monograph on "Dementia Præcox," and special endeavor has been made to study traumatic cases (of which an interesting group has been supplied through the work of the Industrial Accident Board) from the standpoint of Meyer's classification of the traumatic insanities (1904). Occasionally laboratory demonstrations have been made, and much use has been made of charts summarizing the

differential diagnosis of mental disease. The social service is often represented at these staff meetings, and the admixture of medical and social points of view is not only significant in general ways but of great mutual educational service to the physicians and social workers respectively. Graduate nurses are not infrequently permitted to be present at these meetings. There is rarely a meeting without some guest from a near or remote institution. The physicians or lawyers especially interested in the case to be brought up at staff meeting are as a matter of routine invited to be present. Typewritten records of these meetings are often of great service in rendering a decision upon difficult cases, but, in addition thereto, form a mine of special interrogatories and replies by patients having an educational value similar to that of Wernicke's "Klinische Bilder." These meetings are conducted informally, and the opinions of physicians and of others, when requested, are recorded.

As before, the social clinics have been largely attended. No doubt these clinics have been of the greatest service in the somewhat intangible task of making the social worker understand the medical point of view, just as the noon staff meetings have to some extent given the physician the social point of view. Much remains to be done in both directions. One of the difficulties of the general situation has been that although physicians, as such, have a rather negative attitude to such problems of delinquency as frequent our clinic, the social workers are rather apt to have a positive attitude which is at times disadvantageous. Although the physician is rather apt to take the ground that delinquency is nothing more or less than what the layman thinks it is, namely as something not further to be defined, the social worker is rather apt to think that delinquency has been scientifically proved to be based upon feeble-mindedness, if not upon some active form of mental disease. The disappointment of certain social workers upon finding that the problems of delinquency cannot at once be resolved as the problems of feeble-mindedness, insanity or epilepsy, is hard to meet. However, both the physicians and the social workers may certainly be said to have obtained that individual point of view toward the delinquent himself which

Dr. William Healy, of the Juvenile Psychopathic Institute in Chicago, has called so clearly to the attention of probation officers, judges and others in his book "The Individual Delinquent," 1915.

Symptomatic of the increasing interest in the matter of mental hygiene is not only the privately organized and successful Massachusetts Society for Mental Hygiene, whose secretary, Dr. Frankwood E. Williams, has been officially connected both with the psychopathic ward of the University of Michigan and the Psychopathic Hospital in Boston, but also the establishment of a course in mental hygiene under the School for Health Officers managed by Harvard Medical School and the Massachusetts Institute of Technology. Public health problems and the problems of mental hygiene come into lively and mutual relation, especially in the field of brain syphilis and its prevention. In addition to the problems of infectious nature no doubt the public health student of the future will take into account administrative problems involving the insane, and the education of the public health administrator will comprise not merely all those problems which are more or less nearly related to quarantine and to epidemics, but also the problems of institutional regulation as a whole. The public service will no doubt greatly benefit from a mutual interchange of views and knowledge between the public health workers in the narrow sense of the term "public health" and the workers in mental hygiene, so long known under their less pretentious title of hospital physicians and administrators. The course in mental hygiene has consisted in this second year of six lectures, in which the history of mental hygiene as a branch of social endeavor has been taken up, and special attention has been given to the infectious and somatic forms of mental disease, including brain syphilis, the work on mental tests as of value to army and navy and other public health officers, the importance of establishing psychopathic hospitals, receiving wards, and the like. Some requests have been received for opportunity to study mental hygiene in the concrete, as shown at the Psychopathic Hospital, which requests are doubtless related to the proposal to establish in connection with the National Public Health Service at Washington a division of mental hygiene.

The State Board of Insanity's training school, as it has been termed, has developed gradually. Opportunities have been more largely taken by physicians who have had some work in insane hospitals and desire to develop themselves further, and by mature physicians, who, for a variety of reasons, prefer public service to private practice, than by recent medical graduates. For the present this is not perhaps wholly to be regretted, since it is important that the modern standards of classification and treatment of mental disease shall be spread throughout the medical profession. In the course of time, however, it will become important that younger physicians be made to understand earlier than they now understand how interesting and valuable the public service is becoming. It is a truism that the vast majority of hospital administrators and even of practicing alienists have drifted by chance into their specialty instead of having entered the career by design. To be sure, so long as we offer the physician entering insane hospital service an honorarium of but \$50 a month, we shall not be likely to compete effectively with the attractions of numerous other branches of public and semi-public hospital service, or even of private practice. It may be hoped, therefore, that the initial salary may be placed at \$75 a month rather than \$50, that is, that the grade of junior assistant physician, as it is commonly termed, be abolished in our Massachusetts institutions, and service begun by physicians having the grade of assistant physician. So much is necessary to say with respect to developments in the State Board's training course, so far as they concern the recent medical graduate. It will no doubt be possible to fill our service from different parts of the country with good men who have for various reasons come to see the advantage of psychopathic hospital training, but it will be to the greater advantage of the State hospital system in the long run if we can induce men to go early into the attractive form of public service now presented by State hospitals. Something in this direction is undoubtedly to be accomplished by the Psychopathic Hospital on account of the resort of Harvard and Tufts students in considerable numbers to our various clinics and exercises. Only by thus stimulating local sources to supply the State hospitals with physicians can we hope to improve the State hospital service fundamentally.

Mention has been made above of the opportunities for training which social workers may obtain and have in many instances obtained at the hospital. There are signs of a similar tendency on the part of nurses. In many respects the Psychopathic Hospital work appeals more to general hospital nurses than to State hospital trained nurses.

Much use has been made of the hospital in connection with psychology, and just as a considerable amount of work is obtained from medical students in course of their training, so a great deal of mental testing is performed by competent psychological students in the course of their training.

The general propaganda work of the hospital need not be specially mentioned here, since a good idea thereof may be obtained from a glance at the lectures and publications in the next section.

VI. LECTURES AND PUBLICATIONS.

The titles of lectures and contributions of the Psychopathic Hospital are as follows: —

Jan. 4, 1915. — A talk by Dr. John Bryant, illustrated by tables, attended by representatives from most of the State institutions. "His work seems to point to differences between what he calls the 'carnivor' and 'herbivor' types of human structure and function. His conclusions, if sound, have a bearing on diet and other measures of treatment."

Lectures and clinics at the Psychopathic Hospital arranged for the group for the study of mental defect and mental disorder of the Boston conference on illegitimacy: —

Jan. 4, 1915. — "The value of mental tests." Robert M. Yerkes.

Jan. 11, 1915. — "Modern approaches to the problem of feeble-mindedness." E. E. Southard.

Jan. 18, 1915. — "Individual care of the feeble-minded in the community." Herman M. Adler.

Feb. 1, 1915. — "The general nature of insanity and its different forms." E. E. Southard.

Feb. 8, 1915. — "Insanity in private practice." Isador Coriat.

Feb. 15, 1915. — "The relation between insanity and psychoneurosis." Donald Gregg.

Mar. 1, 1915. — "Extramural treatment of the insane." Herman M. Adler.

A course of lectures on mental hygiene, in the school for health officers, was given by Dr. E. E. Southard at the Psycho-

pathic Hospital on February 18 and 25, March 4, 11, 18 and 25.

Following is the program of a conference on neurosyphilis, held May 27, 1915, at which Dr. Abner Post presided: —

- I. "Social service methods and results." Staff of out-patient department and social service.
 - (a) "Methods of investigation."
 - (b) "Question of enlightenment of members of the family as to syphilis in patients."
 - (c) "Family pathographies with respect to syphilis."
 - (d) "Economic aspect of the problem."
- II. "Clinical diagnosis." H. C. Solomon and other members of staff.
 - (a) "Question of latent neurosyphilis and paresis *sine paresi*."
 - (b) "Types of neurosyphilis."
 - (c) "Cerebrospinal fluid studies."
- III. "Post-mortem studies." Members of the staff with the aid of the pathological service of the State Board of Insanity.
 - (a) "Convolutional type in paretics."
 - (b) "Histological studies."

On June 18, 1915, the third annual conference on the medical and social work of the Psychopathic Hospital was held.

- I. "The intensive group of Psychopathic Hospital social service cases." Mary C. Jarrett.
- II. "Routine mental tests as the proper basis of practical measures in social service." Helen M. Wright.
- III. "Conclusions from repeated mental tests of certain psychopathic subjects." J. H. Bazeley.
- IV. "The multiple choice method (Yerkes) of mental examination in estimating candidates for employment." C. Rossy.
- V. "Problems suggested by a review of faradic sensory threshold work with psychopathic subjects." G. Philip Grabfield.
- VI. Analysis of recoveries at the Psychopathic Hospital: III. A third series of 100 cases, considered especially from the after-care standpoint." Frankwood E. Williams.
- VII. "Massage in hypertensive and hypotensive cases." J. F. Krasnye.
- VIII. "Spinal fluid sugar in psychopathic subjects." H. C. Solomon and J. B. Rieger.
- IX. "Gold sol reaction work" (presented in brief abstract).
 - (a) "The clinical status of the method: spinal fluid determination in 500 cases." H. C. Solomon.
 - (b) "Is the cerebrospinal syphilis gold sol reaction in some sense a *forme fruste* of the parietic reaction?" H. C. Solomon.

(c) "The bacteriology and the gold sol reaction of post-mortem cerebrospinal fluids." Myrtelle M. Canavan and E. S. Welles.

(d) "Gold sol reactions in miscellaneous body fluids." E. S. Welles.

X. "The margin of error in Psychopathic Hospital diagnoses: second study, 1914." E. E. Southard.

List of Psychopathic Hospital Contributions, 1915.

- 1915.1. A. W. Stearns. The Occurrence of Hallucinosi in 500 Cases of Mental Disease. Journal of Nervous and Mental Disease, January, 1915.
- 1915.2. R. M. Yerkes and H. M. Anderson. The Importance of Social Status as indicated by the results of the Point Scale Method of measuring Mental Capacity. Journal of Educational Psychology, March, 1915.
- 1915.3. John Bryant. The Carnivorous and Herbivorous Types in Man: the Possibility and Utility of their Recognition. Boston Medical and Surgical Journal No. 1, March 4, 1915.
- 1915.4. Donald Gregg. Somatic Characteristics of General Paretics. Boston Medical and Surgical Journal, April 8, 1915.
- 1915.5. G. P. Grabfield. Variations in the Sensory Threshold for Faradic Stimulation in Psychopathic Subjects: II. Manic-depressive Insanity. Boston Medical and Surgical Journal, Aug. 5, 1915.
- 1915.6. G. P. Grabfield. Variations in the Sensory Threshold for Faradic Stimulation in Psychopathic Subjects: III. The Dementia Præcox Group. Boston Medical and Surgical Journal, Aug. 5, 1915.

In accordance with concurrent vote of the State Board of Insanity of November 10 and the Boston State Hospital trustees, the scientific contributions of the State Board and of the Psychopathic Hospital are hereafter numbered in a single series, the combined number to date being 117, so that the next contribution is numbered 118. Following are new contributions with their *year* numbers:—

- 1915.20. C. S. Rossy. First Note on the Psychological Study of the Criminals at the Massachusetts State Prison. State Board of Insanity Bulletin, September, 1915.
- 1915.21. C. S. Rossy. Comparison of Mental Gradings by the Yerkes-Bridges Point Scale and the Binet-Simon Scale. Submitted to the American Journal of Psychology.
- 1915.22. E. E. Southard and M. M. Canavan. Focal Lesions of the Cortex of the Left Angular Gyrus in Two Cases of Late Catatonia. Submitted to American Journal of Insanity.

- 1915.23. E. E. Southard. The Feeble-minded as Subjects of Research in Efficiency. Transactions of the National Conference of Charities and Correction, May, 1915, Baltimore.
- 1915.24. E. E. Southard. Advantages of a Pathological Classification of Nerve Cells, with Remarks on Tissue Decomplication as shown in the Cerebral and Cerebellar Cortex. Transactions of the Association of American Physicians.
- 1915.25-1915.34. *Notes of a Conference on the Medical and Social Aspects of Syphilis of the Nervous System, held at the Psychopathic Hospital May 27, 1915.*
- 1915.25. Abner Post. Remarks at Neurosyphilis Conference May 27, 1915. Boston Medical and Surgical Journal, Dec. 9, 1915. Vol. CLXXIII, No. 24, pp. 867-869.
- 1915.26. Helen M. Wright. Examination and Prophylaxis for Syphilitic Patients and their Families: Methods of Investigation at the Psychopathic Hospital, Boston, Mass., 1915. Boston Medical and Surgical Journal, Dec. 9, 1915, Vol. CLXXIII, No. 24, pp. 869-873.
- 1915.27. Mary C. Jarrett. Estimate of the Cost of Social Work in Connection with Examination and Treatment of other Members of Families of Syphilitic Patients throughout the State, based upon 147 Cases dealt with in Eight Months at the Psychopathic Hospital. Boston Medical and Surgical Journal.
- 1915.28. Donald Gregg. A Few Economic Facts of the Syphilis Problem, from the Psychiatric Side. Boston Medical and Surgical Journal.
- 1915.29. J. H. Bazeley and H. M. Anderson. Mental Features of Congenital Syphilitics. Boston Medical and Surgical Journal.
- 1915.30. H. C. Solomon, H. O. Koefod, E. S. Welles. Diagnostic Value of Lange's Gold Sol Test. Boston Medical and Surgical Journal.
- 1915.31. H. C. Solomon and H. O. Koefod. The Significance of Changes in Cellular Content of Cerebrospinal Fluid in Neurosyphilis. Boston Medical and Surgical Journal.
- 1915.32. E. E. Southard and H. C. Solomon. Latent Neurosyphilis and the Question of General Paresis *sine Paresi*. Boston Medical and Surgical Journal.
- 1915.33. H. C. Solomon and E. S. Welles. The Development of the Gold Sol "Paretic" Reaction as compared with the "Cerebrospinal Syphilitic" Type, considered from the Time necessary to form a Completed Reaction. Boston Medical and Surgical Journal.
- 1915.34. E. E. Southard. Syphilis and the Psychopathic Hospital: Notes on Medical and Social Progress, especially in Neurosyphilis, Boston, Mass., 1915. Boston Medical and Surgical Journal.
- 1915.35. C. S. Rossy. Second Note on a Psychological Study of the Criminals at the Massachusetts State Prison. State Board of Insanity Bulletin.

VII. ACKNOWLEDGMENTS.

I have the duty and pleasure of acknowledging numerous gifts to the hospital, as follows: —

From the Jamaica Plain branch of the Boston Public Library, periodicals and magazines.

From Mrs. Cook, a donation of flowers.

From Mr. Rodney Jordan, a Victrola record.

From Mrs. C. A. Weed, a box of magazines.

From Miss Helen G. Shaw, clothing, flowers and magazines.

From Mrs. N. D. Nelson, flowers.

From Dr. L. Vernon Briggs, for the medical library, a set of the "Review of Neurology and Psychiatry," covering the years 1903 to 1912.

From Dr. George L. Walton, a copy of his most recent publication, entitled "Peg Along."

From Mr. G. D. Wells, a contribution of magazines.

From the Boston Public Library, numerous contributions of periodicals and magazines have been received.

Frequent donations of flowers by former patients are sent in to the wards.

The social service department has also been the recipient of donations as follows: —

Mr. Philip Aronson, money for use of special patient.

Mrs. Barr, money for use of special patient.

Mrs. John Beach, sum of money.

Mr. J. M. Bazeley, money for use of Men's Club.

Mr. Wm. Bloom, money for salvarsan for special patient.

Mrs. Edward Burnett, clothing.

Mrs. John W. Carter, numerous donations of money to pay salaries of special workers, recreation, Christmas gifts.

Mrs. E. R. Catherwood, sum of money for aid of a family.

Mrs. Wm. H. Devine, clothing.

Miss Rosamond Fay, gifts of money, wool for knitting, and clothing.

Mrs. Charles W. Fiske, magazines.

Thomas B. Fitzpatrick, sum of money.

Mrs. S. C. Fowle, clothing.

Fragment Society, materials to be made into clothing.

Hebrew Benevolent Society, contributions of money for special patients.

Mrs. Mark DeWolfe Howe, clothing.
King's Chapel Sunday School, money for Christmas gifts.
Lend-a-Hand Society, money for special patients.
Elizabeth Leonard, magazines.
Mr. Harry Liebermann, money for special patient.
Mr. David A. Lourie, money for special patient.
Marion Mansfield, magazines.
Miss Marjorie Mills, clothing.
Miss Mary Morton, money and wool for knitting.
Mrs. Charles B. Moseley, magazines.
Charles B. Moseley, Jr., books and games.
New England Belgian Relief Fund, wool for knitting.
Mr. Peavy, money for special patient.
Mrs. L. B. Rantoul, contributions of money for various purposes.
Miss Russell, sum of money.
Mr. Max Shoolman, money for special patient.
Miss Mary G. Stone, books and clothing.
Mrs. Richard Stone, sum of money.
Sunday School of New North Church, Hingham, Christmas gifts.
Dr. A. C. Wellington, sum of money.
Women's Society of Temple Israel, money for special patient.
Mr. E. W. Woodward, magazines.
Mr. Horatio A. Lamb, sum of money for salvarsan.
Mrs. F. R. Powell, sum of money.
Mrs. Frederic C. Shattuck, money for special patient.
Mrs. Alexander F. Wadsworth, money for salary of special social worker.

Contributions for the work of the committee on employment and after-care have been received from the following: Brown, Durrell & Co., Mr. Richard B. Carter, Mr. Edward Codman, Mr. Ernest Dane, Miss Mary C. Gray, Mrs. Henry S. Grew, Miss Dorothy I. Hale, Mrs. H. M. Jordan, Mr. and Mrs. A. Lawrence Lowell, Miss Eleanor S. Parker, Mr. Henry G. Pickering, S. S. Pierce Company, Mr. Herbert M. Sears, Dr. Henry R. Stedman, Mr. Horatio A. Lamb, Mrs. F. R. Powell, Mrs. Frederic C. Shattuck, Mrs. A. F. Wadsworth.

In addition to the above donations, a number of anonymous donors have contributed sums of money for various purposes.

REPORT OF PATHOLOGICAL LABORATORY.

To the Superintendent of the Boston State Hospital.

Following is a report of the pathological laboratory from Jan. 19, 1915, when the present pathologist took charge, to Sept. 30, 1915.

The activities of the laboratory may be divided into: (1) Routine work, comprising various clinicopathological examinations, and also autopsies; (2) Staff meetings and lectures to nurses; (3) Work of a hygienic and prophylactic nature for the entire institution; (4) Research work.

1. The following clinicopathological examinations have been made: —

Bacteriological examinations,	274
Urinanalyses,	335
Cerebrospinal fluid examinations,	72
Blood counts,	77
Agglutination reactions,	137
Vaccines prepared,	2
Surgical specimen,	1
Gastric analysis,	1
Total,	899

Fifty-six autopsies have been performed during the year ending Sept. 30, 1915. Fourteen of these were done previous to the writer's arrival by Dr. M. M. Canavan, assistant pathologist to the State Board of Insanity. The percentage of autopsies to the number of deaths during the same period (177) is 31.6.

A microscopic examination of each autopsy is made, not only of the trunk organs, but also of the brain and cord. Six regions of each cerebral hemisphere, three levels of the cord and one section each of the medulla and cerebellum are stained

for the study of the cells, the fibres and the neuroglia. Dr. Geneva Tryon, assistant physician in the hospital, has given valuable assistance in the performance of the autopsies, and study of the tissues.

2. The usual monthly staff meetings have been held in the laboratory, at which subjects having both a clinical and pathological bearing and autopsies of unusual interest have been presented. Fourteen lectures and demonstrations have been given to the nurses, and, in addition, instruction at autopsies, which is of great value in connection with their lectures.

3. The laboratory has co-operated in two collective undertakings of a hygienic and prophylactic nature. The first of these was an investigation, in conjunction with the dentist to the hospital, Dr. W. J. Whelan, into the prevalence of pyorrhea among the patients. The statistics obtained were: patients examined 1,267; normal appearing gums, 24 per cent.; teeth absent, 11 per cent.; slightly spongy gums, 28 per cent.; spongy gums, 20 per cent.; spongy gums and loose teeth, 17 per cent. Examinations for amebæ were made in 61 cases, representing the various groups, with the following results: normal appearing gums, amebæ found, 6 cases; not found, 5 cases; cases showing various degrees of affection from slight sponginess of gums to marked pyorrhea, amebæ found, 38 cases; not found, 12 cases.

The laboratory has also begun, at the suggestion of and in co-operation with the State Department of Health, an examination of all food handlers in the institution (employees, patients and nurses) for the detection of typhoid carriers. A preliminary Widal reaction is done for each person, and further study, if the findings should be suggestive. This work is at present purely preventive, as there have been no cases of typhoid in the institution for some time. A large number of antityphoid inoculations have been given by the clinical staff and pathologist to patients, nurses and employees, the intention being to immunize all susceptible persons within the hospital and as many as possible of the individuals who will go back into the community.

4. Research work: The dysentery epidemic of the spring and summer has been of an unusual nature, both as regards the

causative organism and the pathological findings. A report on the epidemic is in preparation.

A histological study of the autonomic nervous system, together with the central nervous system and the ductless glands in autopsied cases, has been undertaken.

A large number of organic cases at the infirmary provide a fruitful field for the study of problems connected with aphasia. A beginning of the clinical and pathological study of certain selected cases has been made by the infirmary physicians, Dr. Tryon and Dr. E. M. Pease, and the pathologist.

Dr. Adele R. Emerson and Mr. J. W. O'Meara have been voluntary workers in the laboratory during the summer.

Respectfully,

M. E. MORSE,

Pathologist.

REPORT OF THE SOCIAL SERVICE DEPARTMENT.

To the Superintendent of the Boston State Hospital.

I herewith submit a report of social service work done for the year Dec. 1, 1914, to Nov. 30, 1915.

Total number of new cases referred,	249
Total number of visits to all cases,	933
Interviews with relatives at hospital,	29
Interviews with patients in hospital,	133
Cases continued from previous year or interest renewed,	60

The most striking development in the work has been the increased number of patients boarded out in the community. On Jan. 1, 1915, the State Board of Insanity transferred 8 cases to our care. During the year we have placed out 8 patients. Two were later discharged capable of self-support, and 3 were returned for further institutional care, leaving 11 still in family care at the end of the year.

The development of this phase of the work has necessitated putting aside some of the lesser problems which were undertaken before. Applicants for boarding patients must be visited, their references looked up, and finally they must be instructed in the care of the individual patient. Then after the patient is placed, there is the personal supervision to be given, varying with each patient. Then, too, the clerical details, presentation of bills, etc., all take time.

The after-care work is done as formerly, — a visit during the fifth month to any patient on trial visit who has not reported at the hospital. Special cases are looked up during the third month, or sooner if the physicians request it. The card catalogue of patients on visit or escaped is still kept, and during this year has been supplemented by a list, kept in the

medical offices, of all patients on visit who are reporting either in person or by letter to the physicians. In this way, although every patient on trial visit does not become a social service case, they are checked up and accounted for each month. Any who have not reported for two months previous to the expiration of the visit are looked up.

A course of seven lectures, followed by a quiz and an examination, was given to the senior class of the training school. Owing to the size of the class, this had to be given to two groups. The members showed their interest, and the results of the examination were most satisfactory. The experimental course in practical work was not continued. It was felt to be too desultory for practical results. To give the nurses something of value to them and worth the time expended in teaching them, it was felt most advisable to wait until an assistant could be had in order that more time for instruction could be taken, but not at the expense of the work.

The co-operation of outside agencies has continued to be of great value, especially when they have opened their records to us for further history. Our plans for after-care work, too, have been greatly assisted by various agencies. In the same way we have tried to assist others by reporting the condition of patients, their progress, or in planning for the welfare of the families.

Early in the year, after two experiences when lack of knowledge of another agency's interest in one case, and their ignorance of our knowledge of a patient in the other, interfered with good work, an experiment was tried. For three months the patients who were admitted to the hospital either by direct commitment or by transfer were registered at the confidential exchange. This in no way placed them on any charitable list, but was merely placing each name in a directory where if anyone else became interested they might be informed that we knew the family, while we, at the same time, would be notified of their inquiry. In the three months 184 cases were registered, 59 had not been previously registered, 14 we did not have sufficient data to identify, 50 were registered already by the psychopathic department, and 61 were known to other social agencies besides the psychopathic department. Since

this time we have been notified of other agencies becoming interested in eight families which we were first to register. This information is very helpful in several ways. We know almost at once if the family is receiving adequate supervision. There is a possibility of obtaining reliable social history. Assistance may be had in getting a patient returned to the community. A routine registration would mean that we had this information at hand, rather than waiting to get it when a case became urgent. This year, more than ever, we have proved the value of the confidential exchange.

Again thanks are due to the many who have assisted us, especially those who spent their time with our pupil nurses in explaining their work, and also those whose records have been of use to us. Mention should also be made of agencies in other States which helped us get in touch with relatives of patients.

The work has progressed, but it has also felt its limits. It is sincerely hoped that the next year may see the boundaries extended so that we may reach out and accomplish more.

GERTRUDE L. FLETCHER,

Social Worker.

Nov. 30, 1915

SUPERINTENDENT OF NURSES' REPORT.

To the Superintendent of the Boston State Hospital.

I herewith submit the sixteenth annual report of the training school for nurses.

Graduating Class of 1915.

Patricia M. Barbour.	Mary T. McGuire.
Elmina Conary.	Elizabeth J. McPhee.
Sadie I. Erbb.	Annie M. Montgomery.
Elizabeth J. Gillis.	Bessie M. C. Murphy.
Bessie W. Halfyard.	Anna D. Nordberg.
Florrie Hartshorne.	Martha V. Smith.
Ethel G. Long.	Hazel M. Young.
Elizabeth B. Mahoney.	Patrick J. Leary.

Nursing Staff.

	Men.	Women.	Totals.
Superintendent of nurses,	—	1	1
Assistant superintendents of nurses (one graduate of this school; one graduate of another school).	—	2	2
Supervisors, day: —			
Graduates of this school,	—	5	5
Graduates of other schools,	2	—	2
Supervisors, night: —			
Graduates of this school,	—	2	2
Not a graduate,	1	—	1
Head nurses: —			
Graduates of this school,	1	13	14
Graduates of other schools,	—	6	6
Pupils,	—	3	3
Attendants,	8	4	12
Day nurses: —			
Graduates of this school,	1	2	3
Graduate of another school,	1	—	1

Nursing Staff — Concluded.

	Men.	Women.	Totals.
<i>Day nurses — Con.</i>			
Pupils,	—	27	27
Attendants,	32	28	60
Probationers,	—	12	12
Affiliated,	—	3	3
<i>Night nurses: —</i>			
Graduates of this school,	—	3	3
Pupils,	—	16	16
Attendants,	17	12	29
Probationers,	—	4	4
Totals,	63	143	206

NOTE. — Twenty-seven women nurses and attendants are employed in eight wards occupied by male patients.

Accepted during the Year.

	Men.	Women.
Probationers,	—	67
Attendants,	64	14
Graduates of this school re-employed,	—	9
Graduates of other schools,	1	7

Left during the Year.

Graduates of this school,	—	19
Graduates of other schools,	1	5
Pupils,	—	10
Attendants,	51	21
Probationers,	—	17
Dropped from school, remained as attendants,	—	9

The school opened this year with an attendance of 67 pupils, as follows:—

	Women.
Seniors,	12
Intermediates,	19
Juniors,	22
Probationers,	14

The training school graduated 16 nurses,—including 1 man,—making a total of 137 graduated since it was organized.

Most of the senior nurses have gone to the Boston City Hospital during the past year, for their six months' course; at the present time there are seven of them there finishing their course.

During the last year the usual number of Boston City Hospital nurses have entered for their three months' course; three or four enter at one time four times a year. At the present time there are three here finishing their course.

The courses for the nurses and attendants are practically the same as last year.

Respectfully submitted,

JANE ROBERTSON, R.N.,

Superintendent of Nurses.

Nov. 30, 1915.

VALUATION.

Nov. 30, 1915.

REAL ESTATE.

Buildings and 152 acres of land taken from the city of

Boston, Dec. 1, 1908,	\$1,073,392 00
Land and buildings since Dec. 1, 1908,	1,161,689 38
Psychopathic department, land and buildings,	577,221 37
	<hr/>
	\$2,812,302 75

PERSONAL PROPERTY.

Food,	\$9,556 00
Clothing,	11,895 00
Furnishings,	80,742 00
Heat, light and power,	2,864 00
Repairs and improvements,	6,159 00
Farm, stable and grounds,	15,135 00
Miscellaneous,	22,764 00
Industries,	3,062 00
	<hr/>
	\$152,177 00

SUMMARY.

Real estate,	\$2,812,302 75
Personal property,	152,177 00
	<hr/>
	\$2,964,479 75

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1915:—

CASH ACCOUNT.			
Balance Dec. 1, 1914,	.	.	\$14,625 75
<i>Receipts.</i>			
<i>Institution Receipts.</i>			
Board of inmates:—			
Private,	.	\$24,998 11	
Reimbursements, insane,	.	16,097 87	
		<hr/>	\$41,095 98
Sales:—			
Food,	.	\$923 33	
Clothing and materials,	.	58 50	
Furnishings,	.	1 00	
Heat, light and power,	.	19 72	
Repairs and improvements,	.	27 03	
Miscellaneous,	.	4 50	
Farm, stable and grounds:—			
Cows and calves,		\$28 00	
Pigs and hogs,	.	161 59	
Hides,	.	12 55	
Sundries,	.	934 86	
		<hr/>	1,137 00
			2,171 08
Miscellaneous receipts:—			
Interest on bank balances,	.	\$256 03	
Sundries,	.	299 73	
		<hr/>	555 76
			43,822 82
Sales on account of industries fund,	.	.	153 09
<i>Receipts from Treasury of Commonwealth.</i>			
Maintenance appropriations:—			
Balance of 1914,	.	\$4,082 45	
Advance money (amount on hand November 30),	.	30,000 00	
Approved schedules of 1915,	.	\$433,135 38	
Less returned,	.	1 43	
		<hr/>	433,133 95
			467,216 40
Special appropriations,	.	.	4,427 78
Industries fund,	.	.	123 10
			<hr/>
Total,	.	.	\$530,369 00

Payments.

To treasury of Commonwealth, institution receipts,	\$43,822 82
Industries fund,	153 09

Maintenance appropriations: —

Balance November schedule, 1914,	\$18,708 20
Eleven months' schedules, 1915,	433,133 95
November advances,	18,361 43

470,203 58

Special appropriations, approved schedules,	4,427 78
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Industries fund, approved schedules,	123 16
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Balance, Nov. 30, 1915: —

In bank,	\$10,920 25
In office,	718 32
	<hr/>
	11,638 57

Total,	\$530,369 00
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MAINTENANCE.

Appropriation,	\$474,701 84
Expenses (as analyzed below),	474,516 71

Balance reverting to treasury of Commonwealth,	\$185 13
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Analysis of Expenses.

Salaries, wages and labor: —

Henry P. Frost, M.D., superintendent,	\$4,000 00
General administration,	64,751 32
Medical service,	33,315 26
Ward service (male),	34,375 30
Ward service (female),	58,870 91
Repairs and improvements,	8,446 15
Farm, stable and grounds,	10,948 36
	<hr/>
	\$214,707 30

Food: —

Butter,	\$17,546 33
Butterine,	1,274 06
Beans,	1,828 29
Bread and crackers,	407 72
Cereals, rice, meal, etc.,	1,704 87
Cheese,	1,613 29
Eggs,	12,081 22
Flour,	13,936 09
Fish,	3,272 87
Fruit (dried and fresh),	4,633 04
Lard,	458 52
Macaroni, etc.,	43 93
Meats,	35,001 29
Milk,	14,670 43
Molasses and syrup,	463 81

Amounts carried forward,	\$108,935 76	\$214,707 30
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<i>Amounts brought forward,</i>		\$108,935 76	\$214,707 30
Food — <i>Con.</i>			
Pie filling, etc.,		547 76	
Spices, seasonings, salt, etc.,		1,089 53	
Sugar,		7,824 51	
Tea, coffee, broma and cocoa,		3,559 98	
Vegetables,		4,550 40	
Yeast,		738 46	
Sundries,		44 73	
			127,291 13
Clothing and materials: —			
Boots, shoes and rubbers,		\$2,217 51	
Clothing,		4,292 35	
Dry goods for clothing and small wares,		3,031 57	
Furnishing goods,		500 66	
Hats and caps,		158 66	
Materials and machinery for manufacturing,		120 21	
Sundries,		79 86	
			10,400 82
Furnishings: —			
Beds, bedding, table linen, etc.,		\$9,747 51	
Brushes, brooms,		207 35	
Carpets, rugs, etc.,		463 95	
Crockery, glassware, cutlery, etc.,		1,441 22	
Furniture and upholstery,		1,726 91	
Kitchen furnishings,		1,772 29	
Materials and machinery for manufacturing,		2,033 56	
Wooden ware, buckets, pails, etc.,		332 80	
Sundries,		157 19	
			17,882 78
Heat, light and power: —			
Coal,		\$41,894 26	
Gas,		535 12	
Oil,		343 93	
Sundries,		263 19	
			43,036 50
Repairs and improvements: —			
Brick,		\$7 59	
Cement, lime and plaster,		659 58	
Doors, sashes, etc.,		252 12	
Electrical work and supplies,		1,667 34	
Hardware,		1,339 78	
Lumber,		1,145 26	
Machines (detached),		280 00	
Paints, oil, glass, etc.,		2,373 22	
Plumbing, steam fitting and supplies,		2,484 71	
Roofing and materials,		1,407 09	
Sundries,		130 30	
			11,746 99
Farm, stable and grounds: —			
Automobiles, gasoline, oil and tires,		\$2,840 24	
Automobile repairs,		1,823 38	
Blacksmith and supplies,		561 95	
Carriages, wagons, etc., and repairs,		449 02	
<i>Amounts carried forward,</i>		\$5,674 59	\$425,065 52

<i>Amounts brought forward,</i>	\$5,674 59	\$425,065 52
Farm, stable and grounds — <i>Con.</i>		
Fertilizers, vines, seeds, etc.,	1,902 98	
Grounds,	896 50	
Hay, grain, etc.,	2,788 83	
Harnesses and repairs,	371 20	
Horses,	600 00	
Other live stock,	182 50	
Tools, farm machines, etc.,	2,965 57	
Veterinary services, etc.,	395 99	
Sundries,	339 88	
		16,118 04
Religious services,		1,455 00
Miscellaneous: —		
Books, periodicals, etc.,	\$946 18	
Cuspidor supplies,	21 24	
Entertainments,	684 09	
Freight, expressage and transportation,	200 87	
Funeral expenses,	157 80	
Gratuities,	177 43	
Hose, etc.,	81 65	
Ice,	57 13	
Medicines and hospital supplies,	5,494 62	
Medical attendance, nurses, etc. (extra),	1,421 02	
Patients' board out,	817 40	
Postage,	1,241 56	
Printing and printing supplies,	1,789 08	
Printing annual report,	331 98	
Return of runaways,	49 62	
Soap and laundry supplies,	3,272 88	
Stationery and office supplies,	2,018 21	
School books and school supplies,	47 96	
Travel and expenses (officials),	953 57	
Telephone and telegraph,	2,273 19	
Tobacco,	370 94	
Water,	8,338 05	
Sundries,	161 97	
Lavatory supplies,	969 71	
		31,878 15
Total expenses for maintenance,		\$474,516 71

SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1914,	\$16,928 25
Appropriations for fiscal year,	1,258 24
Total,	\$18,186 49
Expended during the year (see statement annexed),	\$9,489 78
Reverting to treasury of Commonwealth,	7,541 95
	17,031 73
Balance Nov. 30, 1915,	\$1,154 76

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$11,638 57	
November cash vouchers (paid from advance money), account of maintenance,	18,361 43	
Due from treasury of Commonwealth, account of November, 1915, schedule,	11,382 76	
	<hr/>	\$41,382 76

Liabilities.

Schedule of November bills,	\$41,382 76
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PER CAPITA.

During the year the average number of inmates has been 1,558.70.

Total cost for maintenance, \$474,516.71.

Equal to a weekly per capita cost of \$5.8544.

Receipt from sales, \$2,171.08.

Equal to a weekly per capita of \$0.0268.

All other institution receipts, \$41,651.74.

Equal to a weekly per capita of \$0.5138.

INDUSTRIES FUND.

Balance Dec. 1, 1914,	\$110 36
Receipts credited,	153 09
	<hr/>
	\$263 45

Expenditures, approved schedules (see statement annexed),	\$123 16
Balance Nov. 30, 1915,	140 29
	<hr/>
	\$263 45

INDUSTRIES.

Expenditures.

Tools and machinery: —

Bobbins,	\$2 00	
Clamps,	1 22	
Keys,	80	
Needles,	2 49	
Peggie,	45	
Print frame,	1 21	
Rug hooks,	80	
Staples,	1 00	
	<hr/>	\$9 97
Advertising sales,	8 00	

Materials: —

Beads,	\$0 37	
Crayon,	09	
Dyes,	24 59	
Ink,	25	
Linen,	3 35	
Paper,	27	
	<hr/>	
Amounts carried forward,	\$28 92	\$17 97

Special Appropriations.

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Expended to Date.	Balance at End of Year.
Butler building addition, Infirmary, . . . . .	. . . . . . . . . . . . . . .	\$39,000 00 275,000 00 250,000 00	- - -	\$38,737 95 274,107 29	\$262 05 892 71
Land (paid direct from State Board of Insanity),	Transferred from extraordinary expenses, Acts 1910, chap. 513 Acts 1910, chap. 513 Res. 1911, chap. 65	1,258 24 150,000 00 52,000 00 32,000 00 31,000 00 18,000 00 150,000 00 10,000 00	\$5,062 00	401,258 24	-
Reception building,	Acts 1913, chap. 21	150,000 00	1,182 44	51,982 84	1 17 16
Two cottages, men's group,	Res. 1913, chap. 133	52,000 00	1,203 62	30,028 95	1 1,971 05
Cottage for farm patients,	Res. 1913, chap. 133	32,000 00	1,303 19	28,765 73	1 2,234 27
Dining room,	Res. 1913, chap. 133	31,000 00	430 41	15,508 04	1 2,491 96
Extending boiler house, etc.,	Res. 1913, chap. 133	18,000 00	283 52	149,483 02	1 516 98
Extension water and sewerage system,	Res. 1913, chap. 133	150,000 00	24 60	9,689 47	1 310 53
		\$1,008,258 24	\$9,489 78	\$999,561 53	\$1,154 76

¹ Reverting to treasury of the Commonwealth.

Respectfully submitted,

FRED L. BROWN,

Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

ALONZO B. COOK,

Auditor.

PRODUCTS OF THE FARM AND GARDEN.

GARDEN PRODUCTS.

Asparagus, 17 boxes,	\$59 50
Beans, string, 239 bushels,	298 75
Beans, shell, 2 bushels,	1 70
Beets, 604 bushels,	332 20
Beet greens, 116 bushels,	34 80
Cabbage, 23 tons,	264 50
Carrots, 274½ bushels,	192 15
Celery, 199 boxes,	149 25
Chard, Swiss, 478 bushels,	191 20
Corn, sweet, green, 875 bushels,	525 00
Cucumbers, 3½ bushels,	7 00
Dandelions, 97 bushels,	33 95
Egg plant, 3¼ barrels,	14 06
Kale, 337 bushels,	84 25
Lettuce, 1,107 boxes,	309 96
Onions, 511 bushels,	306 60
Parsley, 17 bushels,	5 95
Parsnips, 326 bushels,	211 90
Peas, green, 71 bushels,	78 10
Peppers, 2¼ bushels,	1 12
Potatoes, 1,291 bushels,	968 25
Pumpkin, 8½ hundredweight,	6 37
Radishes, 12 bushels,	6 00
Rhubarb, 16,647 pounds,	166 47
Scallions, 42 bushels,	10 50
Spinach, 703 bushels,	210 90
Squash, summer, 40 barrels,	24 00
Squash, winter, 305 hundredweight,	228 75
Tomatoes, 195 bushels,	117 00
Turnips, rutabaga, 224½ bushels,	134 70
Turnips, white, 401 bushels,	240 60
Watercress, 10 quarts,	50
Apples, seconds, 22 barrels,	33 00
Cherries, 6 quarts,	72
Pears, 5½ bushels,	4 12

Plums, $8\frac{3}{4}$ bushels,	\$8 75
Blackberries, 731 quarts,	58 48
Currants, 1,372 quarts,	68 60
Raspberries, 62 quarts,	9 30
Strawberries, 1,767 quarts,	176 70
<hr/>	
Total,	\$5,575 65

FARM PRODUCTS.

Alfalfa, green, $60\frac{1}{2}$ tons,	\$363 00
Alfalfa, hay, $10\frac{1}{2}$ tons,	262 50
Fodder, cabbage, turnips and kale, 12 tons,	60 00
Fodder, grass and clover, 40 tons,	200 00
Fodder, green corn, 21 tons,	105 00
Fodder, oats and peas, 10 tons,	50 00
Hay, damaged, bedding, 35 tons,	402 50
Hay, English, 145 tons,	3,335 00
Oats, hay, 5 tons,	50 00
Rowen, 60 tons,	600 00
Rye, hay, $10\frac{1}{2}$ tons,	157 50
Milk, 88,110 quarts,	4,992 90
Beef (cow), 9,106 pounds,	842 31
Pork, $30,395\frac{1}{2}$ pounds,	3,039 55
Hides, 819 pounds (less cost of killing),	67 04
Tallow, 385 pounds,	9 62
Ice, 380 tons,	1,140 00
Manure, 356 cords,	2,136 00
Calves sold, 17,	34 00
Cows sold, 11,	508 00
<hr/>	
Total,	\$18,354 92
<hr/>	
Garden products,	\$5,575 65
Farm products,	18,354 92
<hr/>	
Total,	\$23,930 57

REPORT OF WORK DONE IN THE MEN'S INDUSTRIAL ROOMS.

FOR THE YEAR ENDING NOV. 30, 1915.

Articles manufactured.

Awnings,	11
Baskets: —	
$\frac{1}{2}$ -bushel, farm,	19
1-bushel, farm,	21
4-bushel, rattan,	1
4-bushel, laundry, splint,	27
4-bushel laundry, canvas,	19
8-bushel laundry, splint,	12
8-bushel laundry, canvas,	6
Market,	12
Waste-paper,	20
Beams warped,	5
Blocks, hat,	4
Blocks, brush,	1,090
Books bound,	16
Braid, coir (pounds),	183
Brooms,	1,026
Brooms made over,	21
Brooms, whisk,	326
Brushes: —	
Bath,	297
Bowl,	5
Hair,	6
Hair dust,	112
Hair floor,	214
Horse mane,	45
Nail,	413
Radiator,	23
Scrub,	458
Shoe,	90
Special,	1
Stove,	33
Waxing,	55
Whitewash,	12
Carriage seat,	1
Coat hangers, wire,	401
Coats,	12
Cushions, chair,	6
Denim (yards),	82
Door mats, coir matting,	28

Door mat, wood,	1
Fly swats,	417
Frames, heddle,	4
Frames, rug,	3
Hammock, barrel stave,	1
Hammocks, duck, complete,	4
Hats, rye straw,	35
Hats, tea mat,	72
Iron working table,	1
Mattresses,	206
Mats, regular,	56
Mats, special,	13
Milk stools,	3
Pads, sweat,	25
Pad, operating table,	1
Pants,	23
Pillows, feather,	85
Pillows, hair,	199
Rugs, woven, old carpet,	3
Rugs, woven, rag,	76
Shades, transom, cut and fitted,	25
Shades, window, new,	33
Stretchers, duck,	7
Suitings (yards),	214
Toweling, new (yards),	314
Toweling, old socks (yards),	175
Upholstery: —	
Barber chair,	1
Lounges,	2

Articles renovated.

Baskets: —	
$\frac{1}{2}$ -bushel farm,	7
1-bushel farm,	6
4-bushel laundry, splint,	51
6-bushel laundry, splint,	13
8-bushel laundry, splint,	31
Bridles,	4
Broom handles,	932
Brooms,	135
Brushes,	87

Carpet sweepers,	3	Pillow ticks cut and sewed,	206
Carpets,	4	Rakes, garden,	5
Chairs caned and repaired,	78	Razor strop,	1
Cues retipped,	121	Rugs,	5
Cushions, wagon,	4	Settees caned,	6
Dryers, towel,	4	Shade rollers,	26
Egg beaters,	8	Shades, window,	88
Frames, rug,	3	Sieves,	2
Handles, mop,	102	Springs, box,	2
Handles put on forks and carv- ing knives,	17	Strap, saddle,	1
Lemon squeezers,	4	Tables,	7
Lounges,	4	Walking sticks,	3
Mattress ticks, cut and sewed,	126	Wringers, mop,	2
Mattresses,	688		
Mats,	19	<i>Rubber Goods.</i>	
Pads, sweat,	5	Air rings,	25
Pillows, floss,	35	Bottles, hot water,	15
Pillows, hair,	288	Gloves (pairs),	25
		Ice caps,	3

REPORT OF WORK DONE IN WOMEN'S INDUSTRIAL ROOM.

FOR THE YEAR ENDING NOV. 30, 1915.

Candy bags,	1,600
Cards decorated,	18
Crocheting and knitting: —	
Baby booties (pairs),	11
Baby jackets,	2
Bags,	4
Collar and cuff set,	1
Doilies, crocheted edge,	18
Face cloths,	15
Hot-water bottle cover,	1
Scarfs,	8
Shawls,	5
Slippers (pairs),	4
Stockings (pairs),	2
Teapot holders,	3
For the Red Cross Society: —	
Bed socks (pairs),	7
Helmets,	5
Kneecaps (pair),	1
Mittens (pairs),	2
Mufflers,	107
Stockings (pairs),	24
Wristers (pairs),	56
Dyeing, raffia, thread, yarn, burlap, rags (pounds),	445
Embroidery: —	
Apron,	1
Bags,	2
Bibs,	3
Centrepieces,	4
Collars,	7
Doilies,	72
Sofa pillow tops,	4
Table runner,	1

Fireman's shawl,	1
Lace: —	
Bobbin (yards),	22½
Crocheted (yards),	39
Tatted (yards),	3
Paper work: —	
Paper flowers,	84
Laundry shirt bands,	8,200
Rake bags,	16
Reed and raffia work: —	
Baskets,	74
Curtain holdbacks (pairs),	10
Picture frames,	2
Rugs: —	
Braided,	1
Hooked,	6
Turkish,	8
Spinning (pounds of yarn),	22
Stencils designed and made,	5
Rugs stencilled,	11
Straw hats made and trimmed,	22
Table covers,	26
Tatting: —	
Centrepiece,	1
Collars,	6
Weaving: —	
Burlap cloth (yards),	20½
Crash (yards),	60½
Pattern weaving (yards),	24½
Rugs,	77

REPORT OF WORK DONE IN WOMEN'S SEWING BOOM.

FOR THE YEAR ENDING NOV. 30, 1915.

Aerator covers,	. . .	12
Aprons:—		
Bungalow,	. . .	32
Kitchen,	. . .	384
Maids',	. . .	96
Patients',	. . .	634
Bags:—		
Coffee,	. . .	84
Instrument,	. . .	50
Laundry,	. . .	312
Bath robes,	. . .	104
Bibs, feeding,	. . .	156
Bureau covers,	. . .	36
Caps:—		
Nurses',	. . .	1,021
Operating room,	. . .	6
Chemises,	. . .	36
Curtains, muslin (sets),	. . .	16
Curtains, sash (pairs),	. . .	52
Curtains, scrim (pairs),	. . .	2
Cylinder covers,	. . .	72
Dresses,	. . .	957
Holders,	. . .	180
Jumpers,	. . .	237
Kimonos,	. . .	89
Mattress ticks,	. . .	48
Milk strainer covers,	. . .	6
Napkins, table,	. . .	48
Nightdresses,	. . .	1,152
Operating gowns,	. . .	24
Overalls,	. . .	190
Pajamas,	. . .	6
Petticoats,	. . .	642
Pillow covers, denim,	. . .	6
Pillow slips,	. . .	200
Rubber coats,	. . .	6
Rubber pillow slips,	. . .	24
Screens,	. . .	30
Sheets,	. . .	576
Shirts, bed,	. . .	692
Shirts, night,	. . .	276
Shirts, outing,	. . .	729
Shoes, bed,	. . .	348
Suspenders (pairs),	. . .	504
Tablecloths,	. . .	157
Towels:—		
Dish,	. . .	36
Face,	. . .	531
Hand,	. . .	555
<i>Mending.</i>		
Aprons, kitchen,	. . .	54
Bags, laundry,	. . .	634
Bibs, feeding,	. . .	47
Blankets,	. . .	8
Coats,	. . .	898
Drawers,	. . .	948
Dresses,	. . .	187
Overalls,	. . .	393
Overalls and jumpers (pairs),	. . .	19
Petticoats,	. . .	277
Shirts,	. . .	1,447
Socks (pairs),	. . .	1,766
Trousers,	. . .	1,042
Undershirts,	. . .	84
Vests,	. . .	940

REPORT OF WORK DONE ON WOMEN'S WARDS.

FOR THE YEAR ENDING NOV. 30, 1915.

Apron, linen fudge,	1	Doilies,	18
Bag,	1	Embroidery: —	
Basket,	1	Belt,	1
Bed socks (pairs),	5	Collar,	1
Bedspread of linen and lace,	1	Lace (yards),	13
Carpet rags sewed (pounds),	131	Petticoats,	2
Carpets mended and bound,	3	Pillow slips,	2,978
Collars, lace,	4	Pillows covered,	23
Collar, tatted,	1	Rugs: —	
Covers: —		Braided,	1
Bureau,	70	Hooked,	7
Stand,	2	Woven,	14
Table,	2	Sanitary napkins,	192
Covers for hot-water bottles,	2	Sheets,	5,290
Crocheting and knitting: —		Sheets hemmed,	72
Baby booties (pairs),	15	Straw braided (yards),	1,298
Baby jackets,	7	Tablecloths, hemmed,	5
Bedroom slippers (pair),	1	Tablecloth hemstitched,	1
Mittens (pair),	1	Table napkins,	77
Scarfs,	9	Towels,	548
Shawls,	7	Bandages and dressings.	
Stockings (pairs),	2	Buttonholes.	
For Red Cross Society: —		Candy bags.	
Cap,	1	Christmas and other holiday	
Helmet,	1	decorations.	
Hose, men's (pairs),	2	Crocheted cotton flowers.	
Kneecaps (pair),	1	Laundry bags made over.	
Mittens (pairs),	2	Mending.	
Scarfs,	50	Picking hair.	
Wristers (pairs),	17	Sewing on buttons.	
Curtains, long (pairs),	18	Sewing on tags.	
Curtains, sash (pairs),	16		

STATISTICAL TABLES.

[FORM PRESCRIBED BY STATE BOARD OF INSANITY.]

1. — General Statistics of the Year.

	INSANE.			VOLUNTARY, NOT INSANE.			AGGREGATES.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Patients under care Sept. 30, 1914.									
In hospital.	599	782	1,381	3	3	6	602	785	1,387
In family care.	598	782	1,380	3	3	6	601	785	1,386
Viz.: regularly committed.	1	-	1	-	-	-	1	-	1
Admitted within the year.	585	765	1,350	-	-	-	585	765	1,350
Viz.: by regular commitment.	14	31	45	3	3	6	17	20	37
Voluntary.	716	726	1,442	32	48	80	748	774	1,522
Viz.: by regular commitment.	403	403	806	-	-	-	403	403	806
Voluntary.	217	214	431	32	48	80	249	262	511
by transfer.	5	18	23	-	-	-	5	18	23
from visit.	25	33	58	-	-	-	25	33	58
from escape.	2	2	4	-	-	-	2	2	4
Nominal admissions for discharge.	64	58	122	-	-	-	64	58	122
Viz.: from visit.	59	57	116	-	-	-	59	57	116
from escape.	5	1	6	-	-	-	5	1	6
Whole number of cases within the year.	1,315	1,508	2,823	35	51	86	1,350	1,559	2,909
Dismissed within the year.	622	657	1,279	35	51	86	657	708	1,365
Viz.: discharged.	342	347	689	34	51	85	376	398	774
as recovered.	51	66	117	-	-	-	51	66	117
as capable of self-support.	8	1	9	-	-	-	8	1	9
as improved.	112	90	202	-	-	-	112	90	202
as not improved.	109	105	214	-	-	-	109	105	214
as not insane.	62	85	147	34	51	85	96	136	232
died.	113	90	203	1	-	1	114	90	204
transferred.	90	126	216	-	-	-	90	126	216
escaped.	12	12	24	-	-	-	12	12	24
on visit Sept. 30, 1915.	65	94	159	-	-	-	65	94	159
Patients under care Sept. 30, 1915.	693	851	1,544	-	-	-	693	851	1,544

In hospital,	1,534	842	692	1,534	842	692	1,534
In family care,	10	9	1	10	9	1	10
Viz.: regularly committed,	1,512	832	680	1,512	832	680	1,512
voluntary,	32	19	13	32	19	13	32
supported as State patients,	1,346	707	639	1,346	707	639	1,346
supported as reimbursing patients,	116	83	33	116	83	33	116
Number of different persons within the year,	82	61	21	82	61	21	82
Number of different persons admitted,	1,263	1,470	1,263	1,263	1,470	1,263	2,733
Number of different persons admitted from the community,	663	687	631	663	687	631	1,350
Number of different persons dismissed,	631	639	602	631	639	602	1,270
Number of different persons dismissed to the community,	577	632	545	577	632	545	1,209
Number of different persons recovered,	488	508	456	488	508	456	996
Number of different persons capable of self-support,	49	66	49	49	66	49	115
Daily average number of patients under care,	8	1	8	8	1	8	9
In hospital,	659.38	840.37	658.78	659.38	840.37	658.78	1,499.75
Viz.: State patients,	659.05	834.21	658.45	659.05	834.21	658.45	1,493.26
reimbursing patients,	33	6.16	33	33	6.16	33	6.49
Daily average number of voluntary patients,	616.69	719.45	616.09	616.69	719.45	616.09	1,336.14
	21.75	57.72	21.75	21.75	57.72	21.75	79.47
	20.94	63.20	20.94	20.94	63.20	20.94	84.14
	15.23	18.59	15.23	15.23	18.59	15.23	33.82

Whole number of voluntary admissions, — males, 285; females, 293; total, 578 (67 cases later committed).

2. — Family-care Department.

	Males.	Females.	Totals.
Remaining Sept. 30, 1914,	1	—	1
Admitted within the year,	2	13	15
Whole number of cases within the year,	3	13	16
Dismissed within the year,	2	4	6
Returned to institutions,	2	2	4
Discharged,	—	2	2
Remaining Sept. 30, 1915,	1	9	10
Supported by State,	1	5	6
Private,	—	1	1
Self-supporting,	—	2	2
Reimbursing,	—	1	1
Number of different persons within the year,	3	13	16
Number of different persons admitted,	2	13	15
Number of different persons dismissed,	2	4	6
Daily average number, . . . . .	.33	6.16	6.49
State, . . . . .	.33	3.41	3.74
Private,	—	.83	.83
Self-supporting,	—	1.84	1.84
Reimbursing,	—	.08	.08

3. — Insane received on First and Subsequent Commitments.

NUMBER OF COMMITMENT.	CASES COMMITTED.		
	Males.	Females.	Totals.
First to this hospital,	559	536	1,095
Second to this hospital,	49	60	109
Third to this hospital,	11	10	21
Fourth to this hospital,	1	3	4
Fifth to this hospital,	—	4	4
Sixth to this hospital,	—	2	2
Seventh to this hospital,	—	1	1
Eighth to this hospital,	—	1	1
Total cases,	620	617	1,237
Total persons,	602	597	1,199
Never before in any hospital for insane,	503	505	1,008

4. — *Nativity and Parentage of Insane Persons First admitted to Any Hospital.*

PLACE OF NATIVITY.	MALES.			FEMALES.			TOTALS.		
	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.
Massachusetts,	180	62	68	197	59	60	377	121	128
Other New England States,	49	45	47	41	40	38	90	85	85
Other States,	30	17	21	24	14	16	54	31	37
Total native,	259	124	136	262	113	114	521	237	250
Other countries: —									
Albania,	1	1	1	—	—	—	1	1	1
Austria,	3	3	3	4	5	5	7	8	8
Armenia,	2	2	2	1	1	1	3	3	3
Azores,	3	3	2	—	—	—	3	3	2
Belgium,	1	1	1	—	—	—	1	1	1
Brazil,	—	—	1	—	—	—	—	—	1
Canada,	38	32	34	46	40	41	84	72	75
China,	1	1	1	1	—	—	2	1	1
Denmark,	1	1	1	2	2	2	3	3	3
England,	15	18	17	18	33	33	33	51	50
Finland,	3	3	3	1	1	1	4	4	4
France,	2	3	3	1	2	2	3	5	5
Germany,	11	19	15	6	13	11	17	32	26
Greece,	5	6	6	2	2	2	7	8	8
Holland,	—	—	—	—	1	1	—	1	1
Ireland,	66	145	141	85	172	182	151	317	323
Italy,	22	27	27	14	18	19	36	45	46
Newfoundland,	2	2	4	5	5	6	7	7	10
Norway,	2	2	2	2	3	2	4	5	4
Poland,	2	2	2	—	—	—	2	2	2
Portugal,	2	2	3	—	1	—	2	3	3
Prince Edward Island,	1	—	—	—	—	—	1	—	—
Roumania,	1	1	1	—	—	—	1	1	1
Russia,	35	42	41	26	30	31	61	72	72
Scotland,	7	20	14	6	12	8	13	32	22
Sicily,	2	1	1	—	1	—	2	2	1
South America,	—	—	—	1	—	—	1	—	—
Spain,	1	1	1	—	1	—	1	2	1
Sweden,	3	4	4	6	6	6	9	10	10
Switzerland,	—	1	—	—	—	—	—	1	—
Syria,	—	—	—	2	2	2	2	2	2
Trinidad,	—	—	—	—	1	—	—	1	—
Wales,	1	1	1	1	1	1	2	2	2
West Indies,	5	5	5	1	2	1	6	7	6
Total foreign,	238	349	337	231	355	357	469	704	694
Total native,	259	124	136	262	113	114	521	237	250
Unknown,	6	30	30	12	37	34	18	67	64
Totals,	503	503	503	505	505	505	1,008	1,008	1,008

5. — Residence of Insane Persons admitted from the Community.

	FIRST ADMITTED TO ANY HOSPITAL.			OTHER ADMISSIONS.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Massachusetts: —									
Barnstable County,	-	2	2	-	-	-	-	2	2
Berkshire County,	1	1	2	-	-	-	1	1	2
Bristol County,	1	-	1	1	-	1	2	-	2
Dukes County,	1	-	1	-	-	-	1	-	1
Hampshire County,	-	-	-	-	1	1	-	1	1
Essex County,	27	17	44	5	6	11	32	23	55
Middlesex County,	40	58	98	9	8	17	49	66	115
Norfolk County,	15	15	30	3	3	6	18	18	36
Suffolk County,	401	400	801	78	72	150	479	472	951
Worcester County,	1	4	5	1	1	2	2	5	7
Plymouth County,	6	5	11	-	-	-	6	5	11
Total resident,	493	502	995	97	91	188	590	593	1,183
Connecticut,	-	1	1	1	-	1	1	1	2
Maine,	1	1	2	-	-	-	1	1	2
New Hampshire,	-	1	1	1	-	1	1	1	2
New York,	4	-	4	-	1	1	4	1	5
Kentucky,	1	-	1	-	-	-	1	-	1
Rhode Island,	1	-	1	-	-	-	1	-	1
Russia,	1	-	1	-	-	-	1	-	1
Vermont,	1	-	1	-	-	-	1	-	1
Wales,	1	-	1	-	-	-	1	-	1
Total nonresident,	10	3	13	2	1	3	12	4	16
Cities and towns of 10,000 or over,	480	471	951	93	85	178	573	556	1,129
Cities and towns under 10,000,	23	34	57	6	7	13	29	41	70
Aggregates,	503	505	1,008	99	92	191	602	597	1,199

6. — Civil Condition of Insane Persons first admitted to Any Hospital.

	Males.	Females.	Totals.
Unmarried,	227	222	449
Married,	224	192	416
Widowed,	47	81	128
Divorced,	4	10	14
Unknown,	1	-	1
Totals,	503	505	1,008

7. — *Occupation of Insane Persons first admitted to Any Hospital.*

MALES.

Acrobat,	1	Elevator operators,	6
Actors,	5	Electricians,	2
Advertiser,	1	Engineers,	7
Agents,	5	Engravers,	2
Architect,	1	Errand boys,	5
Army officer,	1	Farmers,	4
Attorneys,	3	Firemen,	7
Auctioneer,	1	Freight handlers,	2
Bakers,	5	Garage helpers,	2
Barbers,	2	Gardener,	1
Bartenders,	2	Glazier,	1
Bellboys,	2	Grocers,	3
Blacksmiths,	2	Grocery clerks,	3
Boiler makers,	2	Hall boy,	1
Bookkeepers,	4	Harness maker,	1
Bootblacks,	2	Highway inspector,	1
Bottler,	1	Hotel proprietor,	1
Brewer,	1	Ice-cream maker,	1
Bricklayer,	1	Iron workers,	2
Broker,	1	Iron molders,	2
Candy maker,	1	Janitors,	9
Carpenters,	21	Jeweler,	1
Caterers,	2	Junk dealer,	1
Chauffeur,	1	Laborers,	63
Chiroprapist,	1	Lather,	1
Cigar makers,	2	Laundrymen,	2
Clergymen,	2	Leather worker,	1
Clerks,	27	Letter carriers,	3
Coachmen,	2	Longshoreman,	1
Contractors,	4	Lumberman,	1
Cooks,	4	Machinists,	15
Costumer,	1	Masons,	4
Currier,	1	Meat cutters,	3
Dentist,	1	Mechanics,	2
Dish washer,	1	Medium,	1
Draftsman,	1	Merchants,	3
Druggists,	2	Metal polisher,	1
Editors,	5	Milkmen,	2

7. — *Occupation of Insane Persons first admitted to Any Hospital —*
Continued.

Miners,	2	Restaurant manager,	1
Motorman,	1	Rubber workers,	3
Moving-picture operator,	1	Sailors,	5
Musician,	1	Salesmen,	18
Music teacher,	1	Shipper,	1
Newsboy,	1	Shoemakers,	11
Newsdealer,	1	Spinner,	1
None,	39	Stableman,	1
Optician,	1	State worker,	1
Painters,	11	State representative,	1
Paper hanger,	1	Steam fitters,	2
Peddlers,	10	Stewards,	2
Physicians,	2	Storekeepers,	4
Piano tuners,	2	Street car conductor,	1
Pilot,	1	Students,	9
Pin boy,	1	Surveyor,	1
Plasterer,	1	Tailors,	11
Plumbers,	3	Teacher,	1
Plumber's helper,	1	Teamsters,	22
Policeman,	1	Upholsterers,	3
Porters,	6	Vagrant,	1
Post-office clerk,	1	Varnisher,	1
Printers,	4	Waiters,	8
Prison guard,	1	Weaver,	1
Railroad conductor,	1	Unknown,	3
Railroad employees,	3		
Real estate business,	1	Total,	503
Rectifier,	1		

7. — *Occupation of Insane Persons first admitted to Any Hospital —*
Concluded.

FEMALES.

Agent,	1	Mission worker,	1
Attendants,	3	Musician,	1
Bookkeeper,	1	Music teacher,	1
Bookbinders,	5	None,	59
Chorus girls,	2	Nurses,	8
Compositors,	2	Physician,	1
Clerks,	9	Saleswomen,	3
Cooks,	11	Scrubwoman,	1
Domestics,	86	Seamstresses,	4
Dressmakers,	10	Secretary,	1
Elevator girl,	1	Stenographers,	3
Factory employees,	24	Students,	7
Furrier,	1	Tailoresses,	3
Governess,	1	Teachers,	8
Housework at home,	214	Telephone operators,	2
Jeweller,	1	Waitresses,	13
Laundresses,	10	Unknown,	1
Maids,	5		
Masseuse,	1	Total,	505

9. — Probable Causes of Mental Disease in Persons first admitted to Any Hospital.

EXCITING CAUSES.	ADMITTED.			PREDISPOSING CAUSES.					
	Males.	Females.	Totals.	HEREDITARY TENDENCY.		NEUROTIC TENDENCY.		ALCOHOLISM.	
				Males.	Females.	Totals.	Males.	Females.	Totals.
Acute infectious diseases,	2	38	40	1	6	7	—	—	—
Alcohol,	86	2	88	8	—	8	—	38	38
Brain tumor,	3	2	5	—	—	—	—	—	—
Cardiorenal,	1	1	2	—	—	—	—	—	—
Carcinoma,	1	1	2	—	—	—	—	—	—
Childbirth,	—	2	2	—	—	—	—	—	—
Congenital,	24	1	25	23	—	23	1	—	1
Diabetes,	2	1	3	—	—	—	—	—	—
Drug habit,	3	1	4	3	1	4	—	—	—
Epilepsy,	10	2	12	3	—	3	—	—	—
Fright,	—	1	1	—	—	—	—	—	—
Grief,	2	1	3	—	—	—	—	—	—
Huntington's chorea,	1	—	1	—	—	—	—	—	—
Involution period,	1	25	26	—	2	2	—	1	1
Lactation,	—	1	1	—	—	—	—	—	—
Multiple sclerosis,	—	2	2	—	—	—	—	—	—
Nephritis and arteriosclerosis,	—	3	3	—	—	—	—	—	—
Pellagra,	1	2	3	1	—	1	—	—	—
Pernicious anemia,	2	—	2	—	—	—	—	—	—
Post-operative,	—	1	1	—	—	—	—	—	—
Senility and arteriosclerosis,	68	71	139	1	2	3	—	3	3
Syphilis,	97	34	131	3	1	4	—	6	6
Thyroid diseases,	2	2	4	—	—	—	—	—	—
Trauma,	5	—	5	1	—	1	—	—	—
Tuberculosis,	—	1	1	—	—	—	—	—	—
Worry,	7	6	13	3	—	3	2	—	2
Totals,	316	197	513	44	12	56	3	48	159
Unknown,	187	308	495	23	88	111	1	—	—
Totals,	503	505	1,008	67	100	167	4	48	159

10. — *Probable Duration of Mental Disease before Admission.*

PREVIOUS DURATION.	FIRST ADMITTED TO ANY HOSPITAL.		
	Males.	Females.	Totals.
Congenital,	25	30	55
Less than 1 month,	72	53	125
From 1 to 3 months,	64	73	137
3 to 6 months,	42	49	91
6 to 12 months,	42	51	93
1 to 2 years,	54	50	104
2 to 5 years,	54	54	108
5 to 10 years,	18	26	44
10 to 20 years,	6	13	19
Over 20 years,	3	1	4
Totals,	380	400	780
Unknown,	123	105	228
Totals,	503	505	1,008
Average known duration (in years), . . .	1.26	1.58	1.42

FORM OF DISEASE.

FORM OF DISEASE.	ADMITTED.			RECOVERED.			CAPABLE OF SELF-SUPPORT.			DISCHARGED.			NOT IMPROVED.			NOT INSANE.			DIED.			AGGREGATES.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
A. — First admitted to any hospital: —																								
General paralysis,	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral paralysis,	61	29	90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral arteriosclerosis,	44	28	72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senile psychosis,	13	46	64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral syphilis,	21	3	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Multiple sclerosis,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Huntington's chorea,	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholic psychoses, acute: —																								
Pathological intoxication,	3	1	4	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Delirium tremens,	10	3	13	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute hallucinosis,	30	15	45	9	7	16	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholic psychoses, chronic: —																								
Chronic hallucinosis,	7	7	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polynuclear psychosis,	8	4	12	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chronic delusional,	9	3	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demented types,	4	5	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exhaustive intoxicative and autotoxic psychoses,	4	4	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Toxic psychoses, acute,	4	2	6	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manic-depressive psychosis,	48	96	144	16	26	42	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Allied to manic-depressive psychosis,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Involution melancholia,	1	24	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Depressions undifferentiated,	3	3	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epileptic psychosis,	8	8	16	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hysterical psychosis,	—	6	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Neurosthenic and psychasthenic psychoses,	4	7	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paranoic condition,	16	24	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dementia praecox,	110	89	199	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Traumatic psychosis,	4	—	4	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Constitutional inferiority,	6	5	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Imbecility,	16	26	42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified,	59	63	122	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not insane,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals,	503	505	1,008	38	46	84	7	—	7	93	72	165	97	85	182	54	75	129	101	77	178	390	355	745

11. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died* — *Con.*

FORM OF DISEASE.	ADMITTED.			DISCHARGED.										DIED.			AGGREGATES.						
	Males.	Females.	Totals.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			Totals.	Males.	Females.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.								
B. — Other admissions: —																							
Psychosis with brain tumor,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General paralysis,	13	1	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral arteriosclerosis,	5	3	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senile psychosis,	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral syphilis,	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholic psychoses, acute: —																							
Delirium tremens,	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute hallucinosis,	7	3	10	4	1	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholic psychoses, chronic: —																							
Chronic hallucinosis,	5	—	5	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Demented types,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polynuritic psychosis,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chronic alcoholic delusional,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Toxic psychoses, acute,	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manic-depressive psychosis,	26	65	91	6	17	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Involution melancholia,	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Depression unclassified,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Epileptic psychosis,	2	4	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Neurasthenic and psychasthenic psychoses,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paranoic condition,	5	4	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dementia præcox,	23	18	41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Traumatic psychosis,	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Constitutional inferiority,	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Imbecility,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified,	10	2	12	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not insane,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals,	117	112	229	13	20	33	1	2	3	19	18	37	12	20	32	8	10	18	12	13	25	65	82
Aggregate cases,	620	617	1,237	51	66	117	8	1	9	112	90	202	109	105	214	62	85	147	113	90	203	455	437
Aggregate persons,	602	597	1,199	49	66	115	8	1	9	109	89	198	108	103	211	62	83	145	113	90	203	449	432

12. — *Discharges of the Insane-classified by Admission and Result.*

NUMBER OF THE ADMISSION.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			DIED.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	44	50	94	7	1	8	101	79	180	103	93	196	58	79	137	106	84	190	419	386	805
Second,	5	14	19	—	—	—	9	9	18	5	12	17	3	4	7	5	5	10	27	44	71
Third,	2	1	3	1	—	1	1	1	2	1	—	1	1	1	2	2	—	2	8	3	11
Fourth,	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—	—	1	1	1	2	3
Fifth,	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	1	1
Seventh,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Total cases,	51	66	117	8	1	9	112	90	202	109	105	214	62	85	147	113	90	203	455	437	892
Total persons,	49	66	115	8	1	9	109	89	198	108	103	211	62	83	145	113	90	203	449	432	881
First admissions to any hospital,	38	46	84	7	—	7	93	72	165	97	85	182	54	75	129	101	77	178	390	355	745

13. — Causes of Death and Forms of Mental Disease in Persons who died.

CAUSES.	AGGREGATES.			PSYCHOSIS WITH CEREBRAL TUMOR.			SENILE PSYCHOSIS.			GENERAL PARALYSIS.			CEREBRAL ARTERIO-SCLEROSIS.			CEREBRAL SYPHILIS.			ALCOHOLIC PSYCHOSIS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
General diseases: —																					
Facial erysipelas,	1	7	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carcinoma,	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diabetes,	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pellagra,	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Septicæmia from infection,	3	3	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Exhaustion,	3	3	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nervous system: —																					
Cerebral syphilis,	7	—	7	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—	—	—	—
Cerebral tumor,	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebral edema,	—	13	13	—	—	—	—	—	—	30	13	43	—	—	—	—	—	—	—	—	—
General paralysis,	30	13	43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Status epilepticus,	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Circulatory system: —																					
Cerebral arteriosclerosis,	5	2	7	—	—	—	—	—	—	—	—	—	5	2	7	—	—	—	—	—	—
Cerebral hemorrhage,	6	15	21	—	—	—	—	—	—	—	—	—	5	11	16	—	—	—	—	2	2
Organic heart disease,	9	9	18	—	—	—	—	—	—	—	—	—	4	2	6	—	—	—	—	3	4
Organic heart disease and nephritis,	3	1	4	—	—	—	—	—	—	—	—	—	1	2	3	—	—	—	—	1	—
Pericarditis,	3	1	4	—	—	—	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—
Pericarditis and nephritis,	3	1	4	—	—	—	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—
Pericarditis,	3	1	4	—	—	—	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—
Pericarditis and nephritis,	3	1	4	—	—	—	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—
Pericarditis,	3	1	4	—	—	—	—	—	—	—	—	—	1	2	3	—	—	—	—	—	—

[illegible]

14. — *Duration of Mental Disease and its Treatment in Persons who recovered or died.*

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.					
	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION.			WHOLE KNOWN PERIOD OF MENTAL DISEASE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
A. — Recovered: —												
Under 1 month, . . .	19	20	39	11	7	18	5	1	6	2	—	2
From 1 to 3 months, . . .	9	13	22	13	12	25	6	11	17	—	—	4
3 to 6 months, . . .	5	5	10	6	13	19	12	11	23	2	—	5
6 to 12 months, . . .	1	4	5	4	6	10	6	10	16	2	—	8
1 to 2 years, . . .	1	2	3	3	7	10	5	8	13	2	—	8
2 to 5 years, . . .	—	—	—	1	1	2	1	3	4	1	—	4
Over 5 years, . . .	—	1	1	—	—	—	—	1	1	1	—	—
Totals, . . .	35	45	80	38	46	84	35	45	80	10	20	30
Unknown, . . .	3	1	4	—	—	—	3	1	4	1	—	—
Totals, . . .	38	46	84	38	46	84	38	46	84	11	20	31
Average of known cases (in months),	1.6	3.9	2.8	4.1	6	5.05	5.7	9.9	7.8	68.3	32	50.2
										10	13.6	11.8

362.2
M38b
1914/16

Public Document

No. 84

EIGHTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE YEAR ENDING NOVEMBER 30, 1916.



BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
32 DERNE STREET.

1917.

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PUBLICATION OF THIS DOCUMENT
APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

362.2
M386
1914/16

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TRUSTEES

OF THE

BOSTON STATE HOSPITAL.

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LEHMAN PICKERT,	Brookline.
MRS. HELEN B. HOPKINS,	Boston.
JOHN A. KIGGEN,	Hyde Park.
JOHN F. FENNESSEY, M.D.,	Dorchester.

Stated meetings of the trustees are held at the hospital on the second Tuesday of each month.

VISITING COMMITTEES, 1916-1917.

February,	Mr. PICKERT, Mr. LEFAVOUR.
March,	Mr. NASH, Dr. FENNESSEY.
April,	Mrs. DEVINE, Mr. KIGGEN.
May,	Mrs. HOPKINS, Mr. PICKERT.
June,	Mr. NASH, Mr. LEFAVOUR.
July,	Dr. FENNESSEY, Mr. KIGGEN.
August,	Mr. PICKERT, Mrs. HOPKINS.
September,	Mrs. DEVINE, Mr. NASH.
October,	Mr. LEFAVOUR, Dr. FENNESSEY.
November,	Mrs. DEVINE, Mr. KIGGEN.
December,	Mrs. HOPKINS, Mr. PICKERT.
January,	Mr. NASH, Mr. LEFAVOUR.

RESIDENT OFFICERS

OF THE

BOSTON STATE HOSPITAL.

HENRY P. FROST, M.D.,	Superintendent.
SAMUEL W. CRITTENDEN, M.D., ¹	Assistant Superintendent.
ERMY C. NOBLE, M.D.,	Senior Assistant Physician.
WILLIAM M. DOBSON, M.D.,	Senior Assistant Physician.
MARY E. GILL-NOBLE, M.D.,	Assistant Physician.
JOHN I. WISEMAN, M.D., ¹	Assistant Physician.
EDMUND M. PEASE, M.D.,	Assistant Physician.
GENEVA TRYON, M.D.,	Assistant Physician.
HEMAN L. CHASE, M.D.,	Assistant Physician.
WILLIAM T. RUMAGE, M.D.,	Assistant Physician.
MARY E. MORSE, M.D.,	Pathologist.
JANE ROBERTSON,	Superintendent of Nurses.
WILLIAM E. ELTON,	Steward.
IDA C. AITKEN,	Matron, East Group.
VIOLET O. LAWLEY,	Matron, West Group.
GERTRUDE L. FLETCHER,	Social Worker.

NONRESIDENT OFFICERS.

FRED L. BROWN,	Treasurer and Clerk.
ARTHUR E. MORSE,	Chief Engineer.
LOUIS S. WHITE,	Farmer.

ATTENDING SURGEON.

IRVING J. WALKER, M.D.

BOARD OF CONSULTING PHYSICIANS.

CHARLES F. WITHINGTON, M.D.,	Physician.
JOHN L. AMES, M.D.,	Physician.
JOHN BAPST BLAKE, M.D.,	Surgeon.
FRED B. LUND, M.D.,	Surgeon.
JOHN JENKS THOMAS, M.D.,	Neurologist.
ROBERT G. LORING, M.D.,	Ophthalmologist.
	Otologist.
HARRIS P. MOSHER, M.D.,	Laryngologist.
MALCOLM STORER, M.D.,	Gynecologist.
CHARLES J. WHITE, M.D.,	Dermatologist.

¹ Resigned.

PSYCHOPATHIC DEPARTMENT.

MEDICAL OFFICERS.

- ELMER E. SOUTHARD, M.D., *Director*, May 1, 1912.
HERMAN M. ADLER, M.D., *Chief of Staff*, June 1, 1912–Sept. 19, 1916.
ELISHA H. COHOON, M.D., *Administrator*, Aug. 21, 1915.
H. C. SOLOMON, M.D., *Acting Clinical Director*, Sept. 1, 1916.
ARTHUR P. NOYES, M.D., *Senior Assistant Physician*, March 31, 1916.
CLIFFORD G. ROUNSEFELL, M.D., *Senior Assistant Physician*, Sept. 15, 1916.
WM. A. BRYAN, M.D., *Senior Assistant Physician*, Nov. 5, 1916.
ANNA C. WELLINGTON, M.D., *Executive Assistant*, Nov. 1, 1913.
GEORGE E. MCPHERSON, M.D., *Assistant Physician*, June 30, 1915–May 24, 1916.
EDWARD T. GIBSON, M.D., *Assistant Physician*, March 1, 1915–July 18, 1916.
F. E. WILLIAMS, M.D., *Assistant Physician*, Aug. 1–Sept. 15, 1916.
JAMES T. ADAMS, M.D., *Assistant Physician*, Dec. 10, 1915.
CHRISTINA M. LEONARD, M.D., *Assistant Physician*, Aug. 17, 1916–Nov. 18, 1916.
MARION H. REA, M.D., *Assistant Physician*, Nov. 1, 1916.
HARRIET M. GERVAIS, M.D., *Junior Assistant Physician*, Jan. 1, 1914–July 14, 1916.
GERTRUDE G. FISHER, M.D., *Junior Assistant Physician*, Feb. 1, 1916–July 31, 1916.
CORNELIA B. J. SCHORER, M.D., *Junior Assistant Physician*, July 1, 1915–July 15, 1916.
JOHN H. ARNETT, M.D., *Graduate Interne*, Sept. 15, 1916.
E. O. CROSSMAN, M.D., *Graduate Interne*, Oct. 2, 1916.
ELEANOR M. SLATER, M.D., *Graduate Interne*, Sept. 1, 1916.
ESTHER S. B. WOODWARD, M.D., *Graduate Interne*, Sept. 20, 1916.
FRANK V. WILLHITE, M.D., *Graduate Interne*, Nov. 4, 1916.
FRANCIS M. SHOCKLEY, M.D., *Graduate Interne*, Nov. 25, 1916.
A. WARREN STEARNS, M.D., *Out-patient Physician*, Nov. 15, 1915.
CHARLES E. SANDOZ, M.D., *Out-patient Physician*, April 11, 1916.
DONALD GREGG, M.D., *Out-patient Physician*, Jan. 1, 1913.
ROBERT M. YERKES, Ph.D., *Psychologist*, March 13, 1913.
MARJORIE SAWYER, *Assistant Psychologist*, Nov. 1, 1914–May 15, 1916.
JOSEPHINE M. CURTIS, Ph.D., *Assistant Psychologist*, Sept. 1, 1916.
FRANCIS J. O'BRIEN, Ph.D., *Assistant in Psychology*, Aug. 15, 1916.

INTERNES.

- ROBERT W. ANGEVINE, Feb. 29, 1916.
D. A. BIASCOECHEA, Oct. 24, 1915–June 29, 1916.
WALLACE A. CLIFFORD, July 1–Sept. 1, 1916.
ANDREW J. CRIGHTON, June 12, 1916.
DENNIS W. CRILE, Oct. 23, 1915–June 29, 1916.
ARTHUR F. G. EDGELOW, Oct. 1, 1915.
MERVIN FREEMAN, Oct. 1, 1915.
ROSS GOLDEN, Oct. 23, 1915–June 29, 1916.
ALVORD GORE, June 17, 1916–Sept. 1, 1916.
ADRIAN G. GOULD, Oct. 1, 1915.

W. E. HARDY, Oct. 1, 1915–Feb. 3, 1916.
HILMAR O. KOEFOD, Feb. 1, 1914–June 7, 1916.
JOHN O'MEARA, July 6, 1916.
BEN D. PAUL, June 1, 1915.
DAVID L. RAPPORT, Oct. 15, 1915–June 7, 1916.
JOHN B. RIEGER, March 1, 1915.
ANNA E. STEFFEN, Oct. 1, 1914.
EDWARD S. WELLES, Oct. 1, 1914.
CECILIO S. ROSSY (psychology), June 1, 1914–June 1, 1916.
SIDNEY L. PRESSEY (psychology), Sept. 25, 1916.
DORIS M. HOLMES (psychology), Oct. 1, 1916.
BRUCE B. ROBINSON (psychology), Sept. 15, 1916.

SPECIAL WORKERS.

MARY C. JARRETT, *Chief of Social Service*, May 5, 1913.
GERTRUDE INNES, *Dietitian*, Sept. 1, 1914–April 1, 1916.
ELIZABETH CHAPMAN, *Clinical Historian*, Aug. 15, 1913.

TRAINING COURSE.

LOUIS G. BEALL, M.D., Greensboro, N. C., Aug. 10–Sept. 14, 1916.
HERMAN CARO, M.D., Monson State Hospital, Feb. 14–March 29, 1916.
FRANCIS S. CALDICOTT, M.D., Taunton State Hospital, Jan. 27–March 8, 1916.
HEMAN L. CHASE, M.D., Jan. 20–July 31, 1916.
TALIAFERRO CLARK, M.D., United States Public Health Service, July 8–Aug. 31, 1916.
GEORGE W. DAVIES, M.D., Essex County Hospital, N. J., Sept. 13–Oct. 13, 1916.
D. R. GILFILLAN, M.D., Grafton State Hospital, Dec. 7–24, 1915, and Jan. 3–17, 1916.
ANNA H. KANDIB, M.D., Danvers State Hospital, July 25–Oct. 3, 1916.
LEONARD F. LOGIODICE, M.D., Bridgewater State Hospital, June 1, 1915–Jan. 16, 1916.
THOMAS J. O'BRIEN, M.D., Westborough, Mass., May 1–Oct. 13, 1916.
CHARLES E. RODERICK, M.D., Howard, R. I., March 27–April 17, 1916.
WM. T. RUMAGE, M.D., Boston State Hospital, April 17–May 17, 1916.
J. DUERSON STOUT, Government Hospital, Washington, Sept. 20–Dec. 15, 1915.
DOUGLAS A. THOM, M.D., Monson State Hospital, Dec. 1, 1915–Jan. 15, 1916.
ARTHUR R. TIMME, M.D., Harper Hospital, Detroit, Mich., Feb. 24–June 20, 1916.
JAMES W. VERNON, M.D., Morganton, N. C., Jan. 3–Feb. 3, 1916.

The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to present herewith their eighth annual report.

PERSONS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the year there were 1,498 patients in the main hospital, 100 in the psychopathic department and 11 boarded with private families, a total of 1,609 persons under the care of this Board. At the close of the year the total number was the same, and of these, 1,512 were in the main hospital, 91 in the psychopathic department and 6 under private care. As the patients remain at the psychopathic department only for a limited period, the service of that department is best measured by the total number of individuals admitted, which for the year was 1,781. In addition to the patients cared for in the house, 1,469 persons came to the out-patient department for advice and treatment. As the rated capacity of the main hospital is estimated at 1,331, the crowded condition remains as urgent as a year ago.

CONSTRUCTION AND IMPROVEMENTS.

The last General Court appropriated \$150,983 for the following additions and improvements:—

Custodial building for 150 women patients,	\$140,000
Fire escapes,	1,683
Piggery,	1,800
Fire alarm and protection,	2,500
Extension of water supply,	5,000

The construction of the custodial building is well under way, the piggery has been built, the water pipes laid, the fire apparatus purchased, the fire escapes erected as far as possible, and the fire alarm system is in the process of rearrangement.

IMPROVEMENTS RECOMMENDED.

The following list of buildings and improvements was submitted to the Commission on Mental Diseases, and represents in the opinion of the trustees the immediate needs of the institution: —

- Infirmary for male patients.
- Nurses' home, east group.
- Nurses' home, west group.
- Kitchen and dining-room building, east group.
- Stable and dairy buildings.
- Assembly hall, west group.
- Alterations, north wing, Fisher building.
- Tuberculosis pavilion, west group.
- Open-air wards over infirmary day-rooms.
- Porches on Stedman and Butler buildings.
- Airing pavilions on lawns.
- Boundary fence.
- Superintendent's house.
- Cottage for farmer.
- Two 78-inch boilers.
- Industrial building.
- Inside fire escapes in infirmary.

Of these the Commission has decided to recommend to the General Court the following: —

- An infirmary for male patients.
- A nurses' home for the west group.
- Alterations of north wing of Fisher Building.
- Two additional boilers.
- Additional inside fire escapes.

The items not included in the recommendations do not add to the capacity of the institution, but are much needed for an efficient management and for the comfort and welfare of the patients and the officers. The cow barns having been condemned as unfit for use, the herd of cows has been sold, and until new dairy buildings are provided all the milk needed by the institution must be purchased.

ESTIMATES FOR MAINTENANCE.

The following are the estimates of the sum needed for maintenance for the ensuing year: —

	Main Hospital.	Psychopathic Department.	Total.
Salaries and wages,	\$179,068	\$72,860	\$251,928
Religious instruction,	1,414	100	1,514
Travel, transportation and office expenses,	10,019	4,200	14,219
Food,	131,596	28,000	159,596
Clothing and materials,	12,048	800	12,848
Furnishings,	25,849	3,500	29,349
Medical and general care,	16,220	6,200	22,420
Heat, light and power,	39,332	10,000	49,332
Farm and stable,	7,635	—	7,635
Grounds,	1,080	—	1,080
Repairs, ordinary,	13,083	2,500	15,583
Repairs and renewals,	1,478	—	1,478
Totals,	\$438,822	\$128,160	\$566,982

THE NURSING STAFF.

In common with most of the institutions there has been a deplorable deficiency in the available number of nurses and attendants, a deficiency averaging 15 for the year, and reaching a maximum of 32 in the summer. Without a sufficient number of good nurses not only are the safety and comfort of our patients endangered, but the efforts at improving their mental condition are thwarted. Higher wages ought to be paid and the living conditions should be improved so that this service may be made a reasonably attractive and permanent vocation in comparison with other forms of labor, and not, as is the case all too frequently, a temporary makeshift until some other opportunity is available.

THE PSYCHOPATHIC DEPARTMENT.

Each year there are increased opportunities for service for the psychopathic department, and a far larger sum than is asked for might properly and profitably be spent in the functions which this branch of the hospital exercises. In the in-

terests of the patients more permanent medical officers are desirable, but these may be had only for much higher salaries. The value of the experience at this hospital is sufficiently great to enable us to keep the positions filled, but for the same reason the officers are the more quickly called to other and more remunerative positions. The out-patient department reaches an increasingly large number of people who need advice but do not need to be admitted to the hospital, and a great deal of rewardful service could be carried on by social workers visiting the homes if the hospital were authorized to employ the necessary number of such assistants.

The psychopathic department is expected to receive patients for temporary care not only from the city of Boston but from other cities and towns in the neighborhood of Boston. This brings to the hospital patients from counties other than Suffolk County. In case such patients are deemed to be insane, the duty and expense of commitment properly pertain to the county in which they reside. If it is found impossible to secure commitments for patients coming from a particular district, either because the judge will not cause the patient to be brought into his court, or will not accept certificates of physicians willing to visit the hospital, the hospital must refuse to accept patients from that district.

The extension of the time of temporary care to ten days has proved to be of great advantage. By an act of the last General Court a member of the medical staff of the hospital may serve as an examining physician for a commitment certificate if designated for this purpose by the commission.

RESIGNATIONS.

The trustees desire to express their appreciation of the long and valued service of Dr. Samuel W. Crittenden, the assistant superintendent of the hospital, who is at present on a leave of absence, at the end of which he is to retire from our service, after a connection of sixteen years with the hospital. They regret also the departure of Dr. Herman M. Adler, who was chief of staff of the psychopathic department since its establishment, and who by his scientific work has added much to the renown of the institution. Dr. Adler resigned to undertake an important investigation in Chicago.

CONCLUSION.

The hospital appears to be in excellent condition, and the officers and employees are giving faithful and loyal service. The administration and financial details for the year are set forth in the accompanying reports.

HENRY LEFAVOUR.
KATHERINE G. DEVINE.
LEHMAN PICKERT.
MELVIN S. NASH.
HELEN B. HOPKINS.
JOHN A. KIGGEN.
JOHN F. FENNESSEY.

Nov. 30, 1916.

SUPERINTENDENT'S REPORT.

To the Trustees of the Boston State Hospital.

I have the honor to present herewith the eighth annual report of the hospital for the year ending Nov. 30, 1916, together with the statistical tables prescribed by the Commission on Mental Diseases, which cover the year ending September 30.

On Oct. 1, 1915, there were 1,587 patients under care, namely, in the main hospital, 1,486; in family care, 10; in the psychopathic department, 91, including 43 cases held "for temporary care and observation."

Including the "temporary care" service there were 2,299 admissions, 2,001 discharges and 263 deaths, leaving 1,622 at the close of the year, distributed as follows: main hospital, committed, 1,503, voluntary, 22, total, 1,525; in family care, 8; psychopathic department, committed 48, voluntary, 11, temporary care, 30, total, 89.

The daily average number of patients was 1,616, of whom 1,427 were State charges, 108 reimbursing and 81 private.

There were 295 voluntary admissions, including 51 classed as not insane. In addition to this number there were admitted as voluntary patients 12 persons, later committed to this hospital and appearing in the statistics among the committed cases only.

There were 1,666 patients admitted for temporary care and observation. Of these, 393 were subsequently committed to this hospital and 78 others remained as voluntary patients after expiration of the observation period.

Exclusive of nominal admissions for discharge (128), temporary-care cases (1,194), transfers (15) and returns from visit and escape (43), and excluding also 51 voluntary patients not insane, 868 patients were received, of whom 750 were admitted for the first time to this hospital, 103 for the second time, 15 for the third time, 6 for the fourth time, and 4 for the fifth to the eighth time.

The cases never before committed to any hospital for the insane numbered 688. The following data refer only to this group of first admissions.

Two hundred and seventy-six, or 40 per cent., were foreign born, and 466, or 67.5 per cent., were of foreign parentage on one or both sides.

The average age on admission was 42.5 years. Nineteen per cent. were sixty years of age or over, and 21 patients were over eighty years old.

The probable cause of the mental disease was recorded in 472 cases; in 216 it was unknown. The principal causes were: senility and arteriosclerosis, 114 cases; syphilis, 93; alcohol, 88 cases in which it was the exciting cause, and in addition 26 in which it was a predisposing or contributory cause. The involution period was given as the cause in 27 cases; 15 were due to congenital causes; 15 resulted from trauma; 11 were due to acute infectious diseases. In 4 cases the cause was brain tumor and in 4 it was pellagra. In 38 the cause was grief or worry. Physical disease and injury, including senile conditions, were held accountable for the mental disorder in 43 per cent. of the admissions.

Given in percentages the principal causes mentioned above figure as follows: senility and arteriosclerosis, 16 per cent.; syphilis, 13.5 per cent.; alcohol, 16.5 per cent.

Only 12.5 per cent. of the cases admitted are shown by our records to have had hereditary tendency to mental disease. The facts in this regard are, however, very difficult to obtain, and these figures are certainly without value.

The forms of mental disease which figure most prominently in the admissions are: general paralysis, 69 cases, or 10 per cent., 11 of these being women; dementia præcox, 129 cases, or 18.7 per cent.; manic-depressive psychosis, 84 cases, or 12 per cent.; cerebral arteriosclerosis, 71 cases, or 10.3 per cent.; alcoholic psychosis, 70 cases, or 10.3 per cent.; senile psychosis, 43, or 6 per cent.

The discharges, exclusive of transfers, temporary care and "voluntary not insane," numbered 555. Of these, 122 were recovered and 154 improved, including 23 classed as capable of self-support.

There were 229 deaths exclusive of the temporary-care service in which 34 deaths occurred. Fifty-four died of general paralysis; 50 of other forms of brain disease; 32 of heart disease; 23 of tuberculosis; 5 of enteritis. There was only one death this year from pellagra.

The above summary of the statistics is based upon the combined service of the main hospital and the psychopathic department. For convenience of reference the following table shows the movement of patients in the main hospital separately:—

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1915,	667	819	1,586
Admitted within the year,	302	379	681
Committed,	84	122	206
Voluntary,	5	8	13
Transferred from psychopathic department, . . .	145	156	301
Transferred from other hospitals,	7	7	14
From family care,	—	10	10
From escape,	6	—	6
From visit,	9	13	22
Nominally admitted for discharge,	46	63	109
Dismissed within the year,	299	345	644
Discharged,	99	125	224
Recovered,	43	68	111
Capable of self-support,	20	12	32
Improved,	25	30	55
Not improved,	11	15	26
Died,	113	78	191
Transferred,	5	42	47
Transferred to psychopathic department, . . .	3	—	3
Family care,	1	12	13
Escaped,	16	—	16
Visit,	62	88	150
Patients remaining Sept. 30, 1916,	671	854	1,525
Family care, Sept. 30, 1916,	2	6	8

GENERAL STATEMENT.

The report of the superintendent, except that portion which summarizes the statistics, deals with the operations of the main hospital only, the director submitting a report on the psycho-

pathic department, which is situated about 3 miles away, on Fenwood Road, Boston. This is essentially a separate establishment, its connection with the main hospital being principally a matter of bookkeeping. It is supplied from the general store-rooms, served by the same laundry, bakery, repair shops, etc., and its purchases and disbursements are made by the same steward and treasurer. The superintendent exercises a species of mild supervision in the administration of the department, but the initiative lies with the director, Dr. Southard, and the medical and scientific work is entirely in his hands.

The main hospital, designed to be and rapidly becoming a large institution to care for patients from the city of Boston, now receives its patients very largely through the psychopathic department, though it admits a considerable number directly from the community, as will be seen by reference to the last table.

The hospital is filled to its utmost capacity, and is in need of additional buildings, not only to provide for more patients, but to make possible their better classification. It needs, too, and needs very badly, two nurses' homes, one in the east and one in the west group; also a chapel and recreation hall, and an industrial building — to mention only the items which directly affect the care of the patients and their treatment.

An unusual shortage of nurses and attendants, elsewhere referred to, presented the most serious difficulty which the administration had to face. Perhaps because of this, combined with the overcrowded state of the wards, we have to record two suicides and two fatal accidents occurring during the year. A male patient, having the liberty of the grounds and employed in the laundry, hanged himself in the laundry basement. A male patient confined to bed in an infirmary ward seized a bottle of tincture of iodine which the nurse had placed on a table for a surgical dressing and swallowed an amount sufficient to cause his death the following day. A male patient in the reception ward was struck on the head and knocked down by a fellow patient, receiving an injury from which he died after a trephining operation undertaken for his relief; a male patient, depressed and rather feeble, fell (or perhaps threw himself) down a flight of stairs, and received fractures of several bones and internal injuries which resulted fatally. Other accidents,

principally fractures, to the number of 24, were of sufficient gravity to call for special report to the Commission on Mental Diseases.

A faithful employee, Mr. Bert L. Dyer, driver of the automobile truck, was crushed between his car and the garage wall, and died from his injuries a few days later.

MEDICAL SERVICE.

An addition to the medical staff was made in the appointment, May 17, of Dr. William T. Ramage as junior assistant physician. The hospital has lost two valuable officers during the year. On July 1 Dr. John I. Wiseman, who had given five years of faithful and efficient service as assistant physician, resigned, desiring to broaden his experience in another field; and in October Dr. Samuel W. Crittenden, purposing to retire from hospital work, was granted one year's leave of absence. His long service, first as assistant physician and then for six years in the position of assistant superintendent, had made Dr. Crittenden in our estimation an essential and indispensable part of the organization. All of his associates, including the patients, to whom he gave devoted attention, regret his going, and are pleased that in his new office with the Commission on Mental Diseases he is still in official and personal touch with our hospital interests.

Dr. Heman L. Chase, formerly a practitioner in Brookline and latterly interne at the psychopathic department, was appointed assistant physician August 1, and assigned to duty in the east group.

Dr. William M. Dobson was promoted to be senior assistant physician October 1, assuming duties in the east group corresponding to Dr. Noble's in the west group, and sharing with the latter responsibilities formerly borne by Dr. Crittenden.

The medical service is increasingly active, as noted last year, and is in need at all times of a full complement of officers in order to do its work in a thorough fashion. There are new standards in diagnosis and treatment, and also added requirements in the field of prophylaxis, while psychiatry proper makes endless demands on the time and energy of the physician, quite apart from the large amount of attention that must be given

to patients' visitors, to ward management, office duties and emergency calls. Our staff, I am pleased to say, shows unflagging interest in all these exacting duties.

The staff meetings bring to discussion numerous interesting and important problems, and not only stimulate study, but insure to the individual patient the maximum of our resources for his special needs. There were held during the year 173 of these meetings, at which 228 cases were presented, and in addition 12 laboratory meetings for demonstration by the pathologist of conditions found on post mortem, instructive presentation of material from the literature, and discussion on results of various research activities in our own laboratories or in others.

Continuing the typhoid prophylaxis work mentioned last year, immunizing injections were given to the entire patient population, with the exception of the aged, and to a majority of the employees, and this is being continued as new individuals enter the wards or the service. The total number of persons so treated during the year was 923, requiring the administration of 2,750 doses of the antityphoid vaccine. This is furnished free of charge by the State Department of Health.

Diarsenol treatment for syphilis was given to 37 patients, selection being made of those most likely to be benefited or those able to pay for the drug. In consideration of the cost involved we have been inclined to await demonstration of actual curative effect, and not temporary improvement alone, before sanctioning its free and general employment in the types of late syphilitic disease of the nervous system which are met in our practice. Quite encouraging results have been obtained in certain cases of paresis, — disappearance of the mental symptoms to extent of practical recovery, — but with persistence of physical signs and laboratory findings which make it uncertain whether the improvement will be permanent; and of course in cases that have suffered actual loss of brain tissue complete restoration cannot be expected.

Research and preventive work on dysentery were continued. There were 260 patients given prophylactic treatment with prepared vaccine. In this group two cases of dysentery occurred, both mild and of short duration. In a corresponding

group of 82 patients not vaccinated there were two cases of dysentery, one of which resulted fatally. In both groups there were noted attacks of diarrhœa, thought to represent the disease in mild form, but as shown above the hospital was practically free throughout the year from a troublesome and dangerous infection, and it is reasonable to attribute this immunity, following the experience of the preceding year, to the use of the vaccine treatment. This matter is discussed in the report of the pathologist, and the work is to be published in the near future.

Dr. Irving J. Walker has continued his service as attending surgeon, giving our patients the benefit of the best surgical skill in the many emergencies which arise, and also relieving many conditions which would otherwise give lasting trouble. The following operations were done, some by the resident staff, but most of them by Dr. Walker:—

Amputation of foot,	1
Amputation of toe,	1
Empyema, excision of ribs,	2
Gland, submaxillary, excision of,	1
Glands, cervical, incision and drainage,	1
Epithelioma of chest, removal of,	1
Epithelioma of hand, removal of,	1
Carcinoma of breast, removal of,	1
Nævus of back, removal of,	1
Rib, tubercular, curettement,	1
Paracentesis thoracis,	2
Paracentesis abdominis,	3
Laparotomy, exploratory,	1
Laparotomy, removal of ovary and tubes,	1
Rectum, prolapse of, operation for cure,	1
Cancer of bowel, making artificial anus,	1
Trephining, after injury,	1
Varicose veins,	1

In addition to the above there were many surgical procedures of minor importance, treatment of fractures and of incised wounds due to patients breaking glass, incision of abscesses, etc.

Dr. Walter J. Whelan's report of the dental work shows that our patients have need of the constant attendance of a dentist, and it is hoped that we may be able to extend the service to full time instead of two half days a week as at present.

Report of Dental Work for the Year 1916.

Operative: —

Treatments: —

Of the teeth,	280
Prophylactic,	265

Fillings: —

Amalgam,	61
Cement,	57
Gutta-percha,	64
Silicate,	3
Fillings removed,	4

Extractions,	228
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Anæsthesia: —

General,	9
Local,	116

Alveolar abscesses,	24
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Alveolus, sinus of,	2
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Fractured jaw,	1
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Pyorrhœa,	22
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Examinations, miscellaneous,	47
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Prosthetic dentistry: —

Plates,	6
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Crowns,	2
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Bridges,	4
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Plates, repaired,	15
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Bridges and crowns removed,	6
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Bridges and crowns replaced,	8
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NURSING SERVICE AND TRAINING SCHOOL.

Unusual difficulty was experienced, throughout the summer especially, from shortage of nurses and attendants, due apparently to the facility with which more attractive and more lucrative employment could be secured. It is increasingly evident that more agreeable living conditions must be provided for our nursing staffs, as well as better remuneration, if the present instability of the service is to be remedied.

Improvement of the training schools is another matter of importance; and a long step forward has been made this year in raising the standard for entrance, lengthening the course, making the curriculum uniform in all the State hospitals, and extending the affiliations with general and other special hospitals for broader nursing experience and training.

Graduating exercises for a class of eighteen nurses were held on the evening of October 27. The program was of unusual interest from the fact that members of the class participated, — Miss Wilson as class prophet, Miss Lunt as valedictorian, Miss Pearce as soloist, and the whole class in a choral finale. The address to the graduates was given by Miss Davis, secretary of the Massachusetts State Nurses Association, and a former principal of our school.

A prize of \$25, offered by the Board of Trustees for the one making the best practical suggestions for added comfort and happiness of patients, was awarded to Miss Emma J. Pearce of the graduating class.

The training school suffered a serious loss by the resignation of two efficient instructors, — Miss Jessie M. Buist and Miss Jean Taylor. This is referred to in the appended report of the superintendent of nurses, where is also given a list of this year's graduates and certain statistics relating to the school and the nursing service.

SOCIAL SERVICE AND FAMILY CARE.

Our efforts in this department of the hospital's work have continued along the lines previously laid down. After-care supervision is given for a period of six months to practically all patients discharged, and assistance rendered in various ways, including help in finding employment in a few cases. In addition to this routine service the social worker is able to help the physicians very materially by attending to many miscellaneous matters relating to the patients' affairs, which can be done more satisfactorily through personal visit than by correspondence. During the year ending July 1, the third year of the social service, 249 cases were handled involving 401 visits to homes, agencies, etc.

Patients boarded by the hospital in family care are also under the supervision of the social worker, and this group has demanded approximately one-third of her time and attention, receiving 231 visits during the year. We have not succeeded in boarding out as many patients as we hoped to place; in fact, we have only 8 in family care at the end of the year, while we

had 10 at its beginning. As noted by the visitor in her report, this is due to the high cost of living and the inadequacy of our authorized rate of board under existing conditions.

RECREATION AND EMPLOYMENT OF PATIENTS.

The purchase of a motion-picture apparatus, using non-inflammable films, has enabled us to give our patients the pleasure and the benefit of this most popular form of entertainment. Each set of films is shown three times to different groups, including some who could not leave the wards and go to the recreation hall. Aside from this new feature our entertainment program consists as before of occasional concerts and illustrated lectures, some donated by friends and some paid for by the hospital, of a dance every fortnight except during the summer, and of various smaller gatherings in the wards for social games and refreshments. We have three pool tables, four pianos, one melodeon and two graphophones for the wards, so that a good many of the corners are brightened, but it would be well if the equipment for music could be doubled.

A variety of interesting occupations is provided, as for several years past, and much attention is paid to this as a means of treatment. Three men and three women instructors devote their whole time to the instruction and training of patients both in the industrial rooms and in the wards. During the past year the manufacture of shoes was begun, additional looms were installed for weaving cloth and the stocking industry was extended. Additional room and more equipment would enable us to do more than is now possible, with benefit to the patients and with profit to the State.

REPAIRS AND IMPROVEMENT OF PROPERTY.

The shingle roof of ward building B was repaired and given an asphalt coating, and the chapel tower which was damaged by lightning was similarly treated. A plaster board ceiling was put in the Stedman solarium. Two of the ward water sections in the Fisher Building were renovated, terazzo floors laid down, and shower baths and new plumbing fixtures installed. An additional bathroom was equipped in the officers' quarters in

the administration building. The front porch and steps at Fisher Center and two porches at ward entrances were rebuilt. The old cow barn was torn down to clear site for the new Women's Custodial Building. The grove back of Butler wards was enclosed with wire fence and a hedge, and wooden stairs were built on the steep bank to give patients access to it. The fence around the pond was repaired and painted. Stone retaining walls and cement platforms and steps were built on the banks between the administration and service buildings; 3,000 square feet of new granolithic walk was laid and other walks were repaired; 537 linear feet of stone wall was built on Walk Hill Street; also concrete steps to replace wood at entrance to the grounds. Concrete floor, an area of 1,500 square feet, was put in Cowles basement. A disused bulkhead at the administration building was replaced with a window and the materials used to construct a service entrance at the rear of Ward E. Repairs and alterations were begun, which when completed will convert the old boiler house at west group into a serviceable garage.

Cowles Building was painted inside with the exception of the rear portion of one wing; and outside painting was done at the infirmary, to be completed next year. The west kitchen was painted. Apartments for the steward's family were painted and papered. The male employees' rooms in the administration building were repaired and painted. New sinks were put in the west kitchen, a power saw in the carpenter shop, machinery for making shoes in the industrial department, a new extractor in the laundry, and new water heaters in the west kitchen and Fisher, north wing.

FARM AND GROUNDS.

Progress can be reported in cleaning up and improving the rough and previously untilled portion of the estate. The farm looks better than ever before, though it is doubtless losing in fertility through withdrawal of the dairy herd and the necessity that we are under of using a large area for raising hay, which then is sold off the place. The lack of suitable farm buildings is a serious handicap, and is growing more serious as the old barns and stables are torn down, to make room for more ward buildings, without others being provided in their place.

The new piggery which was built this year has vastly improved our facilities for care of the swine, and now that the animals are all immunized and the losses from cholera eliminated there is increased profit in this department. It yielded during the year 40,710 pounds of pork, and the herd is now larger than we have had before.

The season was unfavorable for hay, potatoes and early vegetables, but later root crops did well, and the yield of cabbage for winter storage was particularly good. Obstruction of flow in the Stony Brook drain is giving trouble through flooding of the meadows, and if not soon remedied, as promised by the city authorities, conditions in this respect may become as bad as they were before the improvement of this water course some years ago.

The driveways have been improved, certain stretches treated with tarvia, and all well compacted by use of the road roller purchased last year. A new macadam road was made along the south side of the west group quadrangle, and some work was done on a proposed direct road connecting the two groups, utilizing for the foundation of this one discarded tinware and other suitable rubbish.

SPECIAL APPROPRIATIONS.

The Legislature granted special appropriations as follows, to be expended by or under the direction of the Commission on Mental Diseases: —

Constructing and furnishing Custodial Building for 150 women patients,	\$140,000
Constructing fire escapes,	1,683
Constructing piggery,	1,800
Fire alarm and protection,	2,500
Extension of water supply,	5,000
	<hr/>
	\$150,983

Contracts were awarded by the Commission, and work on the Custodial Building was begun in August. The structure is now nearly ready for the roof. The new water pipes have been laid and connected to existing lines. An outside iron stairway has been erected on the Fisher Center, giving egress from the enter-

tainment hall on the second floor. Under the appropriation for fire alarm and protection automatic sprinklers have been installed in the drying room of laundry, the paint shop and the weaving room, and two chemical engines have been purchased, one for each group. The fire-alarm line to the street is to be rebuilt and a system of alarm and call bells installed throughout the buildings.

The piggery was constructed under the supervision of our head carpenter. It has cement floor, adequate water supply and drainage, and steam for cooking the food and heating water. The building is located at the edge of a grove remote from the hospital buildings and also from neighborhood residences. It is 25 by 100 feet, built of wood, with shingled sides and asphalt shingle roof.

MAINTENANCE.

The amount expended for maintenance was \$488,450.66, which, divided by the daily average number of patients, 1,610.09, makes the weekly per capita cost \$5.83. Receipts for board of private patients were \$25,455.45; from reimbursing patients, \$19,893.36; from sales and other sources, \$7,148.06, making the total income \$52,496.87.

Deducting receipts from gross expenses, the net cost of maintenance was \$435,953.79, which, divided by the above average number of patients, gives a net weekly per capita cost of \$5.21.

The above statement includes the psychopathic department. For the main hospital alone the amount expended for maintenance was \$373,974.93, which, divided by the daily average number of patients, 1,516.07, makes the gross weekly per capita cost \$4.74.

The expense of maintenance for the coming year is estimated at \$438,822 for the main hospital and \$128,160 for the psychopathic department, or \$566,982 altogether.

The total value of farm, garden and orchard products for the year was \$19,056.94.

RELIGIOUS SERVICES — ACKNOWLEDGMENTS.

For the customary religious services, for visits to the sick, and for helpful interest in the welfare of the patients we are again under obligations to Rev. Edward A. Gallagher, Rev. Shirley D. Coffin and Rev. Moses L. Sedar.

Donations and entertainments for which thankful acknowledgment is made were as follows: —

Dorchester Women's Club, entertainment.
Postmen's Glee Club, concert.
Father Gallagher and friends, concert.
Miss I. E. Egan, Christmas cards.
Rev. Arthur Banfield, post-card albums.
Church Periodical Club of Milton, magazines and periodicals.
Roslindale Community Club, magazines.
Boston Public Library, magazines and periodicals.
Mrs. Woolsey Hopkins, magazines, set of Encyclopedia Britannica, clothing and materials for industrial room.
Mrs. E. C. Jernegan, magazines and books.
Mr. Franklin P. Shumway, magazines and papers.
Miss Emma Porter, magazines and papers.
Miss Katherine Puffer, Christian Science Monitors.
Mrs. Julia Ashley, money for Christmas tree.

In concluding this report of the year's work it is a pleasure to record with appreciation the valuable service of fellow officers and employees, without whose loyal co-operation no measure of success could be attained. To the trustees I am under constant obligation for cordial support and helpful advice.

Respectfully,

HENRY P. FROST,

Superintendent.

Nov. 30, 1916.

REPORT
OF THE
DIRECTOR OF THE PSYCHOPATHIC DEPARTMENT
OF THE
BOSTON STATE HOSPITAL.

To the Trustees of the Boston State Hospital.

I beg to submit herewith my fifth annual report, and the fourth to cover a year of work as director of the psychopathic department of the Boston State Hospital.

As in previous reports, I shall take up special features under separate sections: I., statistical features; II., problems of hospital management; III., medical and scientific problems of the year; IV., social problems, especially in the out-patient department; V., general and medical educational activities (conferences, medical clinics, social clinics); VI., lectures and publications; VII., alumni; VIII., acknowledgments.

The hospital was established, under the provisions of chapter 470 of the Acts of 1909, as a hospital for the first care and observation of mental patients and the treatment of acute and curable mental disease. In compliance with said act the trustees of the Boston State Hospital erected, furnished and equipped buildings to accommodate 100 patients; the hospital at present operates 110 beds, so that the population may remain approximately 100 and still allow for emergencies.

The enabling act called for the establishment, in addition to the requirements of an out-patient department, of treatment rooms and laboratories for scientific research as to the nature, causes and results of insanity. That portion of the State Board of Insanity's general appropriation (\$2,500) which, since 1909,

has been devoted to investigation of the nature, causes, treatment and results of insanity and the publication of such investigations, was raised during 1915 to \$5,000. The additional sum has been used for purposes of special investigation into the diagnosis and treatment of neurosyphilis, including general paresis and other forms of brain and cord syphilis with mental symptoms.

The director of the hospital, since 1909, has been an officer of the State Board of Insanity, and has continued, with the Commission on Mental Diseases, to have the title of pathologist. The duties of the pathologist to the Commission consist of supervision of the clinical, pathological and research work of the various institutions in charge of the Commission. The plan by which the former State Board of Insanity resumed payment of the salary of the director has been continued.

The internal economy of the institution has continued to improve under the arrangement by which an administrator, Dr. E. H. Cohoon, has been in charge. The executive service, charged with the management of the external relations of the hospital, has been continued and expanded so that the general relations of administration to medicine in the Psychopathic Hospital at the present time closely resemble those obtaining in general hospitals, like the Peter Bent Brigham Hospital. These developments have gone far toward rounding into shape the new conception of a psychopathic hospital as distinct from pre-existent types of hospitals for mental disease.

As formerly reported, there has been great progress in the general understanding on the part of the community and medical and legal professions of the essential differences between receiving wards in hospitals for the insane and psychopathic hospitals.

The extension of the psychopathic hospital grade of service throughout the State is a matter under serious contemplation by the Commission on Mental Diseases. The next center for the establishment of this grade of service, as now contemplated, is in the western part of the State, centering in the city of Worcester. On account of these proposals, section II., on "Problems of Hospital Management," has been devoted in this year's report more to the general features of psychopathic hospital

grade of service than to the details of management which are now reasonably well established.

The special work of our hospital in obtaining a low mortality rate in delirious alcoholic conditions has continued, and it is hoped that successive generations of officers, developed by this hospital and often going into non-mental branches of hospital work, may gradually improve the standards of general hospital treatment of such conditions. It is now a matter of common agreement that the mortality of such conditions as uncomplicated delirium tremens shows an excessively high rate in general hospitals.

The special emphasis of the year has been upon the treatment of neurosyphilis, aided by the special officers appointed by the State Board of Insanity. Attention is called to section VI. in which lectures and publications are listed.

An important step forward in getting our work before the medical public has been taken in connection with the publication of chosen papers from all the State institutions in a volume of contributions, payment for which is made out of that portion of the Commission's general appropriation devoted to investigation and publication. It is hoped that a quarterly bulletin may be published during 1917 which will effect still earlier publication of important contributions. The Psychopathic Hospital will undoubtedly act still more largely in this connection as a research institute of the Commission and the associated State institutions. The committee on publication is headed by Dr. George M. Kline, director of the Commission, Dr. W. E. Fernald, as representing the institutions, and Dr. E. E. Southard, secretary, as pathologist to the Commission, and director of the Psychopathic Hospital.

I. STATISTICS.

The daily average population during the medical year 1916 was 93. The number of patients in the hospital Oct. 1, 1916, was 89. On Sept. 30, 1915, the number was 91.

The total admissions numbered 1,900, making a daily average intake of a little over 5 cases. Of these 1,900 cases, 67 were second or third admissions during the year, so that the total number of different persons admitted was 1,833.

These 1,900 cases were distributed among different forms of commitment, as follows:—

Temporary care (chapter 174, General Acts of 1915),	1,213
Boston police (chapter 307, Acts of 1910),	393
Voluntary,	225
Observation (section 43, Revised Laws),	42
Pending examination and hearing (section 34, Revised Laws),	10
Emergency (section 42, Revised Laws),	8
Commitment Superior Court (section 103),	4
Commitment probate court (section 30),	1
Transfers from other hospital,	4

Of these admissions, 831 became regular court commitments later (399 to the Boston State Hospital).

The native born (1,048) were found to exceed in numbers the foreign born (810); the birthplace of 42 was unknown.

The average age on admission was 39.2.

Of the discharges, 590 were discharged not recovered, 451 not insane, 38 recovered, 72 dead.

I shall not go fully into the matter of clinical diagnosis in the department's cases, reserving this for special studies and a determination of the error in diagnosis in the different groups. To correspond, however, with former tables I present a table embodying the diagnosis in a group which we term for convenience the temporary-care group, which includes cases admitted under chapter 174, General Acts of 1915; chapter 307, Acts of 1910; and sections 34, 42 and 43, chapter 504, Acts of 1909.

Temporary-care Statistics for the Year.

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1916,	16	27	43
Admissions from Oct. 1, 1915, to Sept. 30, 1916,	820	846	1,666
Viz.: chapter 504, Acts of 1909, section 34,	4	6	10
chapter 504, Acts of 1909, section 43,	18	24	42
chapter 504, Acts of 1909, section 42,	3	5	8
chapter 307, Acts of 1910,	249	144	393
chapter 174, General Acts of 1915,	546	667	1,213
Whole number of cases within the year,	836	873	1,709

Temporary-care Statistics for the Year — Concluded.

	Males.	Females.	Totals.
Discharged from Oct. 1, 1915, to Sept. 30, 1916, . . .	824	855	1,679
Viz.: recovered,	22	5	27
improved,	50	38	88
unimproved,	144	156	300
died,	23	11	34
not insane,	143	189	332
escaped,	1	—	1
voluntary to Boston State Hospital, . . .	35	43	78
committed to Boston State Hospital, . . .	182	211	393
committed to Danvers State Hospital, . . .	13	10	23
committed to Worcester State Hospital, . . .	83	49	132
committed to Westborough State Hospital, . . .	34	56	90
committed to Taunton State Hospital, . . .	3	5	8
committed to Tewksbury State Hospital (sane department),	—	1	1
committed to Monson State Hospital, . . .	4	4	8
committed to Medfield State Hospital, . . .	25	38	63
committed to McLean Hospital,	5	—	5
committed to Norfolk State Hospital, . . .	3	—	3
committed to Grafton State Hospital, . . .	11	1	12
committed to Foxborough State Hospital, . . .	29	26	55
committed to Ring's Sanatorium,	3	2	5
committed to Wellesley Nervine,	—	1	1
committed to Pinewood Rest,	—	1	1
returned to main hospital,	—	1	1
returned to Danvers State Hospital,	2	—	2
returned to Medfield State Hospital,	1	4	5
returned to Monson State Hospital,	2	—	2
returned to Worcester State Hospital,	2	1	3
returned to Westborough State Hospital,	1	—	1
returned to Grafton State Hospital,	1	2	3
returned to Taunton State Hospital,	2	—	2
Patients remaining Oct. 1, 1916,	12	18	30
Daily average of temporary-care cases,	20.00	22.05	42.05

Of the discharges, 9 males and 12 females were discharged to the immigration department.

Provisional Diagnosis in Temporary-care Cases.

	Males.	Females.	Totals.
Alcoholic psychoses: —			
Delirium tremens,	32	5	37
Korsakow's psychoses,	10	13	23
Alcoholic hallucinosis,	45	14	59
Alcoholism,	26	7	33
Alcoholic delusional,	7	1	8
Morphinism and other drug psychoses,	—	1	1
Senile psychoses,	17	42	59
Presbyophrenia,	2	2	4
Presenile psychoses,	9	18	27
Alzheimer's disease,	1	—	1
Dementia præcox,	198	242	440
Paranoia,	3	1	4
Paraphrenia,	6	4	10
Manic-depressive insanity,	65	90	155
General paresis,	77	13	90
Cerebral syphilis,	10	7	17
Neurosyphilis,	19	6	25
Epileptic psychoses,	29	21	50
Arteriosclerotic brain disease,	46	25	71
Psychosis of the deaf,	1	1	2
Chorea,	—	1	1
Symptomatic psychoses: —			
Unclassified,	6	7	13
Toxic psychoses,	2	2	4
Uremia,	1	—	1
Multiple sclerosis,	—	2	2
Hyperthyroidism,	—	1	1
Pellagra,	—	2	2
Traumatic psychoses,	6	—	6
Organic dementia,	11	9	20
Not insane,	144	228	372
Unclassified,	42	73	115
No diagnosis,	5	8	13
Totals,	820	846	1,666

II. PROBLEMS OF HOSPITAL MANAGEMENT.

The statistics of the preceding section give an idea of the unique status and relations of the Psychopathic Hospital, both in the metropolitan district and in the Commonwealth at large.

The Psychopathic Hospital in Boston is an institution of new type in America. The hospital approaches the ideal of Griesinger in his conception of the *Stadtsyl* in 1868. Abundant traces of the modeling of our institution after the plan of the Psychiatric Clinic in Munich are found, both in externals and in the essentials of our institution. The institution is not a modified or sublimated form of receiving ward for a great district hospital. The great district hospital, of which the Psychopathic Hospital is a department, has, in point of fact, its own receiving ward planned upon proper modern lines, and is adequately equipped for the reception of insane persons committed to the institution by the operations of the ordinary probate court processes. The Psychopathic Hospital, on the other hand, is an institution which does not receive cases committed by the probate court process. The first requirement in understanding the Psychopathic Hospital's relation to the community is an understanding that the hospital is not built for the reception of medicolegally insane persons who have been determined to be insane upon the assurances of two qualified physicians. It is true that all our patients are admitted under some form of law, but very few of them are admitted by court processes, and those few are sent to us for highly special determinations which the large staff and special equipments of the hospital are enabled to make more quickly and effectively than the State institutions for the great group of ordinary committed cases. Preliminary to the establishment of institutions like the Psychopathic Hospital in other States, it is necessary that laws should be enacted in these other States along the line of the Massachusetts laws for voluntary admissions and for temporary care.

The Psychopathic Hospital, then, represents a type of institution new in America and only in part paralleled by its solitary predecessor in the general field, namely, the Psychopathic Ward of the hospital of the University of Michigan at Ann Arbor. These two institutions, together with the Psychopathic Ward

of Bellevue and Allied Hospitals in New York City, remain the only institutions of great range built on the model of the *Stadt-asyt* of Griesinger. These institutions are public and financed out of public funds. The Boston and New York psychopathic institutions deal with metropolitan district problems, and do not select their material as does, to a large extent, the Ann Arbor institution. The Boston and Ann Arbor institutions have important teaching relations in medical schools and important research functions through their laboratory equipment and force. All three institutions take an important part in the public practice of psychiatry in their communities. About them all will doubtless develop in the long run those social service relations which we have developed in Boston to the best of our ability with the funds assigned. In short, the public aspects and relations of a psychopathic hospital of the Boston type are the most prominent and important of all the relations of the hospital. The ideal aim is the drainage of a district of all its special psychopathic problems not otherwise covered by pre-existing public and private agencies.

Many of our visitors, particularly from the middle and far western States, point their inquiries in the direction as to how far psychopathic clinics of this type ought to be related to their State university medical schools and departments of psychology and sociology. But even in Boston the university relations of the hospital, though close and important, were not the reasons for the establishment of this hospital, nor would they be indispensable in future hospitals of the sort. The somewhat intimate relations between the Psychopathic Hospital in Boston and the municipal court, the juvenile court, the Prison Commission, Industrial Accident Board, the Immigration Bureau and a variety of semipublic social agencies, are the primary relations of the institution taken as a unit in public service. It is here that our experience is of most service to the country at large, as well as to our own community. The Psychopathic Hospital grade of service is coming to be recognized locally as a thing distinct from the district hospital grade of service. It is not that this Psychopathic Hospital service is necessarily superior to district hospital service. The Psychopathic Hospital service is qualitatively different from that of the district hospitals. Whereas

district hospitals serve the insane (in the medicolegal sense of committed cases) and, to a limited extent, the few voluntary and temporary-care cases which the community is yet willing to submit thereto, the Psychopathic Hospital serves the mentally sick or mentally defective in a far broader sense than the statutory definition of insanity would allow.

It is of note that the psychopathic hospital type of service is accepted on all hands in the metropolitan district as now indispensable. Authorities in various allied fields of public service constantly make the remark that no one understands how we could formerly have got on without a Psychopathic Hospital. Tremendous pressure is brought to bear to bring a variety of cases from outside the metropolitan district into the Psychopathic Hospital, and the Commission on Mental Diseases has very liberally permitted the hospital to receive special cases from outside the district. The pressure is becoming so great, however, and the appreciation of the psychopathic hospital grade of service is such, that no doubt, as above mentioned, an extension of this service to the western part of Massachusetts is only a matter of time and appropriations.

The enactment of advanced legislation for the mentally sick, taking this term in the broadest sense, is an indispensable preliminary to the multiplication of psychopathic hospitals over this country. Our own law, especially as modified to permit ten instead of seven days' temporary care of mental cases, appears to be working effectively. It is in one respect not so advanced as the New York City ordinance which permits the psychopathic ward authorities to send out into the community for cases reported to need immediate care. It will be important to consider the New York procedures in this regard for possible imitation in Massachusetts. There are a number of minor inconveniences in the Massachusetts situation which can probably be remedied by further legislation as experience teaches (for example, commitment made of suitable cases from the Psychopathic Hospital should be facilitated from whatever district the patient has residence in). With so large an admission rate (1,900 in 1916), and with the comparatively brief stay which our hundred beds and our comparatively high per capita cost (approximately \$23 per week) cause, it is difficult to choose

cases for intensive work from among the great group in which the problems are relatively easy. On account of the primary and essential relations of the Psychopathic Hospital, it has constantly seemed to the director that his own personal share in the hospital work should at all events be made to include the most important public service cases. The director's docket now includes —

Commitments under indictment (section 103, chapter 504, Acts of 1909).

Commitments of alleged insane pending examination (section 34, chapter 504, Acts of 1909).

Commitments pending determination of insanity (section 43, chapter 504, Acts of 1909).

Industrial Accident Board cases.

Immigration service cases.

Juvenile court cases.

Girls' Parole Department cases.

Special reports on these cases are practically in all cases written by the director himself or by his specially deputed assistant during his absence. Practically all cases that are suitable for such discussion are subjected to a general examination by the whole staff at the noon staff meetings. As the cases accumulate, days are set apart for these forensic and medicolegal problems. The physicians, psychologists and social workers together, if possible, with the probation officers and attorneys, are present at these meetings, and the reports on the forensic cases are rendered with all the special details of a public, social, psychological and medical nature which might otherwise fall out of consideration in routine reports made from typewritten records. In this way impartial Psychopathic Hospital judgments are rendered in which the numerous and often contradictory views derived from all these sources of information are gone over and harmonized, so far as possible, for the benefit of the judges or other authorities.

On these "forensic" days the medical, psychological and social staff learn the requirements and exigencies of public service, the important distinction between medicolegal insanity and the "not insane" group of the mentally sick, and especially learn how important it is to omit minutiae of psychological, social and medical technique from reports to public agencies and the laity.

Besides the public and governmental relations of the Psychopathic Hospital, we have numerous relations to the community which are less defined and for that reason even more complex. We have often made a rough estimate of the number of personalities, normal and diseased, with which the Psychopathic Hospital officers come in contact during the year, setting the number at about 10,000. Only a minority of these have relation to public agencies in the narrow sense of established governmental institutions.

The external relations of the hospital to public agencies have crystallized into definite shape. The external relations to the families of the patients, to the physicians of the patients, to private social agencies and to the patients themselves, before and after admission to the hospital, form the bulk of our work. A small portion of these activities falls to the lot of the organized social service, for which see section IV.

The authorities of institutions for the insane and for the mentally diseased in a broad sense are looking at the operations of schools for social workers the country over, to see whether there will not eventually develop an interest in the psychopathic side. So far the schools for social workers have paid extremely little attention to the psychopathic problem as a practical one, limiting their psychopathic work to a few lectures. The attendance at our social service lectures and clinics is surprisingly large, from the ranks of the social service workers to the probation officers. A lecture upon a timely topic, such as feeble-mindedness, alcoholism or dementia præcox, will attract to our assembly room a group of 150 to 200 persons, without special effort at publicity. What can be given in these lectures is of necessity very elementary. If the course in the school for social workers were adequate in this direction, and if, in particular, there were practical assigned work for the school workers in the psychopathic division of social work, then it would seem that our present lectures would be superfluous and could be replaced with a higher type of lecture. We find that the social workers, as a group, should not be charged with effecting contacts between physicians and judges or other high governmental authorities. We find, secondly, that our social workers are often more humanly charitable than genuinely scientific in their rela-

tions to the individual psychopathic patient, and accordingly we do not charge the social service worker engaged in psychopathic work with the same degree of executive authority that can be permitted to social workers in non-psychopathic fields. Whereas it is well enough for the social worker to arrange for food, shelter, vacations, crutches and the like, it is not well for the social worker to attempt to execute direct or indirect psychotherapeutic prescriptions. In fact, it is the opinion of the undersigned that we are going eventually to require lay mental hygiene officers who shall be graduates of social service schools, or have equivalent ordinary social service experience, and then shall have a considerable experience in advanced work with psychopathic cases before they shall be considered suitable for the difficult type of work which an institution such as ours requires.

When all the demands of public and social service are met, there remains the difficult task of properly individualizing the patient. The tendency might well be, in an institution running at an admission rate of from 1,800 to 2,000 patients, to run patients through as in a mill. We have found it comparatively easy to run a diagnostic mill for the purposes of courts, Immigration Bureau, Industrial Accident Board and the schools. We have been more or less well able to meet the demands of private and semipublic social agencies, despite the fact that we should have, on a low estimate, seven skilled social workers instead of two; but there remains the problem of meeting the individual issues of cases deserving special contacts, particularly in those of the direct or indirect psychotherapeutic sort. The large number of voluntary admissions includes both the "suggestible" group of cases in which direct psychotherapy is of immediate benefit or palliation, and a good many cases where direct psychotherapy by persuasion or command is ineffective and where more elaborate devices are requisite. Some little progress has been made in a method of picking out these cases requiring specialized and individualized diagnosis and treatment, and the ones are being laid for a special service, with particular psychotherapeutic aims in mind. Psychopathologists having an intense and concrete interest in the individual, aside from theoretical interests in special types of speculation, are apparently

somewhat rare. We have not yet had the advantage of many workers in the field of individual psychopathology who have been physicians first and psychopathologists afterward. The out-patient department is a fruitful source of cases of this group, and could be made much richer in this material if the proper psychiatrists were at hand.

The director has continued to carry on the duties of director of the Psychopathic Hospital and those of the pathologist to the State Board of Insanity (since August 1 the Massachusetts Commission on Mental Diseases). As before, the pathological service of the Commission (with Dr. M. M. Canavan as assistant pathologist, a technician and a stenographer) has used the laboratories as a basis of operations.

Upon Nov. 15, 1915, the activities of Dr. H. C. Solomon, as investigator of brain syphilis under the State Board of Insanity, began, but the great mass of his work has been performed during the fiscal year 1916. Most of his work has been carried on in the wards of the Psychopathic Hospital, but the stimulation to new work on the treatment of neurosyphilis in various forms has reached out into other institutions. The necessities for such work in the western part of the State were such that the State Board of Insanity appointed Dr. Douglas A. Thom, formerly pathologist at Monson State Hospital, as assistant pathologist, with the duties of investigation of sudden and mysterious deaths in the institutions in the western part of the State, and investigation and treatment of neurosyphilis in these institutions. The Grafton State Hospital trustees were so courteous as to provide facilities to favor in every way the development of this syphilis work in the western part of the State. The establishment by these trustees of wards for neurosyphilitics, in the Summer Street building (Worcester) of their hospital, has reacted favorably upon the Psychopathic Hospital in Boston, since a number of cases could be transferred to the Summer Street building (Worcester) from the Boston Psychopathic Hospital, and treated by Dr. Thom under less expensive conditions than at the Psychopathic Hospital. This has been particularly advantageous in cases where set treatment prescribed for months at a time was to be carried out upon cases that did not require so many scientific observations from day

to day as the Psychopathic Hospital group in Boston. This Worcester work, under the Grafton State Hospital auspices, has also called attention to the importance of psychopathic hospital grade of service in the western part of the State, and it is not impossible that the State will see its way to the setting up of this grade of service in the near future by developing the Summer Street (Worcester) building, in part or as a whole, along psychopathic hospital lines. The execution of this plan would provide cheaper accommodation for certain convalescent cases, with the maintenance of psychopathic hospital standards of diagnosis, treatment and scientific investigation. Moreover, the much needed postgraduate nurses' training school might be developed in the more ample space afforded by the Summer Street (Worcester) building.

It is a curious and important observation how far the new knowledge concerning syphilis of the nervous system and its relations to general paresis has opened out the whole field of psychiatry as a scientific field of interest to the general practitioner as well as to the specialist, and has been of increasing interest, also, to the lay social worker, the psychologist, the criminologist and the judge. No analysis is attempted here of the results of the brain syphilis treatment, except to say that of 50 cases systematically treated over a period of at least three months, by treatments twice a week with salvarsan or substitutes, 21 cases have resumed their previous work. These results have been, to say the least, interesting, and have stimulated several heretofore skeptical medical superintendents to execute similar or identical work in their hospitals along the lines provided by the ingenious discovery by Ehrlich of salvarsan.

The work of the syphilographers was brought to a public meeting at the Summer Street (Worcester) building of Grafton State Hospital on Nov. 17, 1916, and there is every hope that the results there presented will be followed by a continuation and extension of the work under the Commission.

Although syphilis has been the main therapeutic interest of the year 1916, a great deal of work in other directions has been started or continued. Most important, perhaps, is the work of the psychologists adverted to in the previous section. The first period of general doubt as to the scope and availability of men-

tal tests has been replaced with a period of self-criticism on the part of the psychologists, and at the present time it may well be claimed that the more established and older of the tests have assumed an indispensable place in medical and medicolegal work. The pushing of our psychological staff to the higher level of efficiency by securing persons as psychologists who already hold doctorates of philosophy has been the special feature of the year. The demand for expert psychologists in institutions for the feeble-minded, in prisons, in hospitals for the insane, in schools, in the so-called "psychopathic laboratories" of courts, and in various bureaus for social research in different parts of the country is such that there is little doubt but that we shall for many years be able to secure psychologists comparatively inexpensively on account of the vast and unique material which the Psychopathic Hospital wards and out-patient department supply. The efforts of Prof. R. M. Yerkes, in the direction of elevating the standards of work in the psychological department, cannot be too highly commended. His special work with developments of the multiple choice apparatus is still going on, and threatens to be of singular importance in the testing of the more elaborate mental processes.

Whatever may be said of the inadequacy of various mental systems of mental testing that have been developed as a consequence of the work of Binet, these tests have become of practical value, and are increasingly recognized as having weight in the diagnosis of medical and even social conditions. The psychologists are sufficiently aware of the deficiencies in their tests, and do not claim psychiatric ability. They are, however, able to give the psychiatrist important information as to the mentalities of their cases. They are particularly able to show in certain cases of psychosis an irregularity or inconsistency in the performance of tests which is of some value. We, during the past year, have been studying this matter with more experience in hand. Certain cases failing to perform tests such as a seven-year-old child ought to perform easily are found to be able to perform tests in the twelve-year-old group, and may succeed in performing the thirteen-year-old tests. This inconsistency in performance is perhaps diagnostic of acquired loss of faculty rather than an inborn lack of such faculty. These tests

are of particular interest in cases where the social history is lacking or where the data may be falsified, as in Industrial Accident Board cases, and the like. The psychologists are proceeding to elaborate tests for emotional and volitional capacities, and in the course of a few years the psychologists will probably take an even more important part in our routine work than at the present time.

We have used to some effect the mental tests and certain special tests devised by the psychologist to the hospital, Prof. R. M. Yerkes, in the choice of attendants and employees. It would seem that this kind of experience, if augmented and consolidated in the future, should lay a basis for a quicker and better analysis of capacities than the Civil Service Department is as yet able to make.

Work has been continued upon the treatment of delirium and excitement, and a monograph upon this topic, embodying our surprisingly low mortality in such cases, has been still further delayed, particularly by the departure of Dr. Adler, who was especially engaged upon this work.

It must be emphasized that our material, particularly that admitted under section 307 of the Acts of 1910, the "Boston police group" (393 this year), is as difficult a group of cases as can readily be imagined, and precisely representative of metropolitan conditions. The Psychopathic Hospital's work is performed with methods of hydrotherapy (*without* drugging) that have been known to alienists for decades, but these methods, if known, are hardly grasped in their full importance by the superintendents and medical staffs of general hospitals, in which the mortality in medical delirium tremens, for example, is far higher than what we have to offer in our often more difficult group of cases. As in the case of the syphilis work, so in the case of this well-established hydrotherapeutic treatment of excitement the Psychopathic Hospital appears to have a mission. It has been more successful, being backed up by the financial aid of the Commission, in the direction of the syphilis propaganda than in the propaganda for hydrotherapy. Of course the syphilis propaganda has been spread among receptive insane hospital superintendents rather than among general practitioners, whose actual contact with excited delirious cases is not prolonged.

Outside of syphilis and alcohol, one main causal factor in mental disease is undoubtedly heredity. Regrettably enough, we have not been able to continue the eugenics worker on that work alone during the past year, although Miss Steffen, formerly eugenics worker, remains an interne in the hospital and is occasionally employed at analysis of hereditary material.

An arrangement peculiar to the hospital is that of the clinical historian. Miss Elizabeth Chapman has been on this work since August, 1913, and has accumulated a set of histories in the more important cases which are more nearly models of system and detail than are often secured by internes or physicians. The special histories will be a mine of information concerning heredity for years. From time to time special collections of material are made; for example, collections of data concerning mental disease in one of twins, in the oldest sibling, in the youngest sibling, and in other groups, according to age, sex, race and the like.

But a small proportion of cases of mental disease are commonly counted to be due to direct injury of the brain. Owing to the operations of the Industrial Accident Board, many cases with exceedingly accurate clinical data are sent to the hospital for examination. It would appear that for the first time in this country a considerable group of cases of traumatic psychoses is being examined impartially and reported upon to a board which has many of the powers and dignities of a Superior Court. Heretofore such examinations of mental cases, due or alleged to be due to injury, have been examined in an *ex parte* manner by neurologists for the plaintiffs and the defendants. Our Psychopathic Hospital results have been crucial in a number of these cases. Incidentally much is learned in this group of the actual mechanism and outcome of complicated cases of mental disease. The director has consequently felt it worth while to spend a good deal of personal time on this group of cases, thus freshly opened to impartial scientific examination.

It must not be forgotten that numerous cases of feeble-mindedness and epilepsy arrive at the hospital for diagnosis, particularly cases on the border line. In addition to the work of the psychologists, much work is required upon the brain appearances and changes in this group. Progress has been made upon

a second monograph upon the anatomy of brains of the feeble-minded, chiefly upon material from the Massachusetts School for the Feeble-minded, in which the director has endeavored to correlate brain findings with mental tests and has shown a large degree of correlation.

A very disturbing group of cases is the delinquents. The partition among these delinquents of the genuinely psychotic group (that is, those subject to well-defined forms of mental disease), the epileptic and epileptoid group (upon the latter of which Dr. A. W. Stearns and Dr. Charles E. Sandoz have been especially working), the feeble-minded group, and the group of still less well-defined subjects (those often termed "congenital psychopathic inferiority," "psychopathic personalities," and the like), has continued.

Mention should be made of the continued usage of Kraepelin's "Psychiatrie," ninth edition, as a background for diagnosis. Whereas the Psychopathic Hospital officers have no brief for the finality of Kraepelin's classification, it is no doubt true that the almost encyclopedic fourth volume work of Kraepelin, 1909-15, is the most elaborate treatise extant grounded upon a single principle. Enormous use has been made of this work in the staff meetings, and large portions of the work have been translated at these meetings in direct relation to cases of difficult diagnosis that seem to demand literal comment. In connection with Kraepelin's work, however, much use has been made of Aschaffenburg's large "Handbuch der Psychiatrie," with its multiple and exceedingly competent authorship. The works of Ziehen, Wernicke, Régis and Ballet have been used to a considerable extent in amplifying the dicta of Kraepelin, for the object has been not to regard Kraepelin as in any sense an authority, but only as the best available source of reference. The officers of the medical staff are of such wide derivation, geographically and scholastically, that there is rarely a period in which the staff has not at its command the "New York opinion," or the "Washington opinion" or the "opinion of the Freudians," or otherwise. An extreme democracy and freedom in the uttering of diagnoses and of diagnostic comment is encouraged. These utterances are recorded so that the officers have the benefit of revising their opinions in the light of results.

Since Dr. Adler's resignation as chief of staff, the work of leading the morning rounds, and general management of the clinical work under the director, has been assumed by Dr. H. C. Solomon, who has been excused from a part of his labors as syphilis investigator by the Massachusetts Commission for this purpose. The scientific work of the hospital may be regarded as established on proper lines, and only requires increasing support from the Legislature, in the way of appropriations for investigation to make itself greatly felt in the community, as well as in the country at large, for scientific work on the nature, causes, results and treatment of mental disease and defect.

The director is more and more pleased with the effective arrangements made by the trustees, according to which an administrator of superintendental rank was appointed to care for the external relations of the hospital and for its internal economy from the standpoint of administration. The appointment of this administrator is, in the opinion of the director, an achievement of great value in the theory of psychopathic hospital administration. In no respect does the Psychopathic Hospital so greatly differ from the receiving ward of a district hospital as in its requirement of a special administrator, skilled in the methods of district hospital superintendents, but also in numerous external relations that are not familiar to district hospitals. The administrator of the Psychopathic Hospital is one of the most important agents in mental hygiene of the community that can be conceived. The appended report of the administrator can give only a partial view of his importance in the establishment. This appointment has given the director far more time, opportunity and spirit to apply to the matters of policy and of medicine. The theoretically new thing in our work, then, is the development of an arrangement in the Psychopathic Hospital resembling the separation of administrative and medical powers in institutions like the Massachusetts General Hospital and the Peter Bent Brigham Hospital. The possible friction of personalities in such a system is self-evident and a certain degree of such friction is probably universal. It is worth while to reprint a few lines in which the relations between the director and the administrator are presented in the regulations of our trustees, since they afford a satisfactory basis

for the relation of direction to administration, and promoters of psychopathic hospitals in other parts of the country may wonder how one can satisfactorily arrange for the partition of authority under the extremely difficult conditions which innumerable details of inner and outer relations must produce, quite beyond the power of a competent and useful medical director to manage. The problem is how to give the medical director effective leadership in matters of policy, and yet invest the administrator with the dignity and power which he requires for the proper running of the hospital.

Following are the trustees' regulations: —

1. The psychopathic department shall be managed by the administrator, under the general supervision of the superintendent and in accordance with the director's policy and plans.
2. The administrator shall make reports to the director for transmission to the trustees concerning matters of hospital management, and the director shall add such report on matters of treatment, investigation and policy as he may see fit.
3. Officers shall be appointed by the superintendent, with the approval of the trustees, on nomination of the director.
4. Employees shall be appointed by the superintendent on nomination of the administrator from names recommended by the director.
5. Both the director and administrator shall have the right to dismiss all employees. The director shall, through the superintendent, refer requests to the trustees for the resignation of any officers appointed with the trustees' approval.

The modern metropolitan psychopathic hospital can hardly get on without a director and an administrator, and in my opinion such a hospital also requires an officer of high grade, capable of leadership in the psychological department, social service department, in the out-patient department (medical division), and in the pathological department. It would be desirable, also, to have such persons capable of leadership in the departments of individual psychopathology. It may be that the overhead charge entailed by the procuring of such officers will be so large that, as in Massachusetts, other States may need to resort to the appropriations of the commission or board of supervision or control which governs the entire governmental unit. This has been the tendency even in Massachusetts where about \$14,000 are annually spent by the Massachusetts Com-

mission on Mental Diseases for purposes largely related to the Psychopathic Hospital and its investigations into the nature, causes, results and treatment of mental diseases and defect.

A word should be said concerning the resignation of Dr. H. M. Adler, chief of staff at the Psychopathic Hospital, who has been the director's valuable aid in many matters of policy and practice since the opening of the hospital. His resignation, to go for a time into the field of mental hygiene for the purposes of a survey of conditions in Chicago and Cook County, as well as in Illinois at large, is something which may aid the country-wide propaganda of the National Committee on Mental Hygiene in an important way. It is to be hoped that Dr. Adler's knowledge of the Psychopathic Hospital mechanism, as it has worked out in Massachusetts, will help to place the Chicago psychopathic hospital arrangements on an effective scientific, medical and social basis. Could this be achieved, we could look with pride upon the spreading of our ideals through the work of one of our own officers. In any event, as we are assured by Dr. Thomas W. Salmon, medical director of the National Committee on Mental Hygiene, the Psychopathic Hospital in Boston is one of the most important factors in mental hygiene, both local and national. Although Dr. Salmon has taken Dr. Adler away from our service he has nevertheless recompensed us, at least in part, by sending other men to us who have taken medical assistantships.

Extracts from the administrator's report are included here.

A study of the statistics as presented in the director's report reveals the fact that whereas during the previous year the total admissions numbered 2,001, they only numbered 1,900 during the past year. I believe that this lessened number of admissions is largely due to the closer scrutiny of the applications for admission. An effort was made to select for admission those cases apparently most deserving of Psychopathic Hospital treatment. It is my impression, based on daily experience, that applications for admission to the Psychopathic Hospital from outside of the metropolitan district are monthly and yearly increasing. It is interesting to know, also, that as time goes on the number of applications for treatment at this hospital from other States is markedly increasing. Not only do these applications come from the New England States, but from other States as far distant as Texas and Arkansas.

The general health of the hospital, on the whole, has been very good. During the months of December, 1915, and January, 1916, there was

however, considerable sickness among both patients and employees. This was due to a small epidemic of influenza. Fourteen nurses and attendants were off duty at one time. At about the same time one patient and three nurses developed diphtheria. Fortunately, no deaths resulted.

There were no serious accidents during the year. There were, however, five sudden deaths. Two patients died in convulsions, and two others were senile cases with marked arteriosclerosis. One other sudden death occurred under peculiar circumstances. A disturbed patient, a case of organic brain disease, who had given evidence of rather frequent vomiting, was being treated in a prolonged bath. He was observed to slip down under the water and was immediately taken from the tub and attempts made at resuscitation. Autopsy by the medical examiner showed that he died from asphyxiation which was caused by inspiration of some vomitus into the bronchi.

The routine work of the hospital was carried on without any great difficulties despite the fact that there were many changes in the medical and scientific staffs and a rather unusual number of changes in the nursing and domestic services. The resignation of five physicians, all to accept higher-salaried positions, taking place within a period of two months, laid, for a time, work a hardship on those remaining. There is a considerable demand, both from within the State and from other States, for the psychopathic hospital trained physician, and, although this is to be expected, the hospital organization is not always well prepared for it. The best interests of this hospital demand that there should be at least a nucleus of well-trained medical assistants who could be depended upon to remain a sufficient length of time to meet this contingency of resignations. This can only be accomplished by paying salaries adequate to warrant the holding of positions longer than now obtains.

A matter of considerable importance, especially to every State hospital in the State this year, has been that of maintaining a sufficient force of nurses, attendants and other employees. Located in the city, as this hospital is, it is undoubtedly in a better position to get help than the other State hospitals. In spite of this advantage, during the months of June and July it was impossible to obtain a sufficient number of attendants. The employment of trained nurses to do work ordinarily done by attendants had to be resorted to.

The question of securing and keeping an adequate number of nurses, attendants and other employees in State hospitals has been no small problem for many years. During the past year, on account of the prevailing good times and the consequent higher wages paid for workers along other lines of endeavor, the problem became more acute. The question was considered at a meeting of the trustees of the State institutions, and it is hoped that some solution of the problem will be arrived at. We cannot help but feel that a higher wage rate will assist in relieving the future embarrassment of hospitals in regard to this matter.

The matter of the proper nursing of the patients in this hospital continues to be of considerable interest. The system whereby the nursing is done by trained nurses supplemented by the work of attendants scarcely meets our demands, and is not in keeping with the standard set in this hospital for work along other lines. I consider it at its best to be only a temporary arrangement, and efforts have been made during the year to arrange for affiliation with general hospitals, but unsuccessfully. I recommend the establishment of a postgraduate training course and also affiliations, provided they can be secured. It is, however, pleasing to know that, on the whole, even in the absence of a training school, the taking care of these acute cases has been very well done. The following table will present the amount of nursing work done during the year:—

Daily Average Nursing Service for the Month of November, 1916.

Average number of female graduate nurses on duty daily,	7 $\frac{1}{2}$
Average number of female graduate nurses ill or absent daily,	1 $\frac{3}{4}$
Average number of female attendants on duty daily,	14 $\frac{1}{2}$
Average number of female attendants ill or absent daily,	2 $\frac{3}{4}$
Average number of male attendants on duty daily,	13 $\frac{1}{2}$
Average number of male attendants ill or absent daily,	2 $\frac{3}{4}$

Report of Nursing Service, Dec. 1, 1916.

Complete ward service consists of—

Superintendent of nurses,	1
Assistant superintendent of nurses,	1
Supervisor (male),	1
Assistant supervisor (male),	1
Night supervisor (female),	1
Night supervisor (male),	1
Hydrotherapeutist (female),	1
Hydrotherapeutist (male),	1
Graduate nurses,	9
Female attendants,	16
Male attendants,	16
Ward maids,	3

52

The financial expenditure for the year has been kept within the amount allotted despite the great increase in cost of many commodities. Last year our allowance was \$114,600, of which \$66,500 was for salaries and wages and \$48,100 for the other items of maintenance. For the coming year it is estimated that that part of maintenance, not including salaries and wages, will require an expenditure of \$55,300, an increase of \$7,200 over what was allowed last year. The unusual increase in the cost of food and coal and other commodities really accounts for this proposed increase in estimates.

The sum of \$5,360 for salaries and wages is asked in addition to the amount given last year, for the purpose of arranging for the general increases in wages and salaries, and also for the employment of extra medical and scientific workers.

The natural extension and development of the work in this hospital seemingly demands not only an increase in the number of workers, but also increased remuneration in order to keep them for any considerable length of time.

The following entertainments were given during the year: —

- Dec. 24, 1915. — Carols by members of the New Thought Church.
- Feb. 10, 1916. — Entertainment by Quincy Young People's Religious Union.
- Feb. 14, 1916. — Entertainment by members of the Theodore Parker Church.
- Mar. 23, 1916. — Entertainment by the Hyde Park Unitarian Church.
- April 3, 1916. — Singing by members of the New Thought Church.
- May 4, 1916. — Entertainment by members of the Philips Brooks House.
- May 18, 1916. — Entertainment by members of Christ Church.
- June 1, 1916. — Entertainment by the Barnard Memorial Church.
- June 18, 1916. — Entertainment by members of the Theodore Parker Church.
- July 12, 1916. — Concert by Mr. Mueller and other members of the Boston Y. M. C. A.
- Nov. 9, 1916. — Phonograph musicale by Robert Ruffin.
- Nov. 23, 1916. — A play by young people of the Winkley Guild.

III. MEDICAL AND SCIENTIFIC PROBLEMS OF THE YEAR.

The publications listed in section VI. indicate the tendencies and results of our work. The publications for 1915 are included in the contributions of the State Board of Insanity for 1915, issued in the form of a volume of bound reprints. These papers contain articles on —

(a) Medical diagnosis, especially syphilis: 102 (gold sol index, post-mortem fluids); 103 (gold sol index, variations in different loci of cerebrospinal fluid system); 127 (gold sol index, analysis of 500 cases); 130 (nature of gold sol index parietic type); 113 (carnivorous and herbivorous human types); 114 (carnivorous and herbivorous human types in dementia præcox); 128 (cell conditions, spinal fluid, neurosyphilis); 129 (*paresis sine paresi*); 131 (notes on local progress brain syphilis); 111 (hallucinations in manic-depressive psychosis and dementia præcox); 115 (faradic sensory threshold (Martin test), manic-depressive psychosis); 116 (faradic sensory threshold (Martin test), dementia præcox).

(b) Medical treatment, especially syphilis: 122 (general remarks, syphilis conference); 123 (social prophylaxis syphilis); 124 (cost of social work syphilis); (for medical treatment, see also 131 to 133).

(c) Mental hygiene: 125 (economic facts syphilis); (see also 112, relation of social status to mental capacity; 117 and 132,

mental tests in criminals; 122, 123, 124, 125 and 131, remarks on brain syphilis, its prophylaxis, cost of social work, economic facts, etc.).

(d) Mental tests: 104 (mental tests in doubtful, asocial and psychopathic subjects); 112 (relation of social status to mental capacity); 126 (mental features, congenital syphilis).

(e) Psychiatric theory, functional side: 133 (physiological considerations, neurasthenia); 134 (hysteria).

IV. SOCIAL PROBLEMS ESPECIALLY IN THE OUT-PATIENT DEPARTMENT.

Another year's experience has given us a greater grasp of the potentialities and needs of the social service, which has predominantly extramural relations to the community and operates very largely from the out-patient department as a base. I must reiterate the fact that we are ill supplied with workers. Instead of two paid workers, with a varying number of volunteers, we require, I believe, at least seven paid workers. In short, the social service work is attaining such dimensions and doing such effective work that monetary considerations alone prevent the development of the service along the established lines of such State departments as employ numerous so-called "visitors" for their adult and minor wards. It is true, however, that there are few available workers suitable for taking the seven places which I regard as the minimum for scientifically effective work in this field in the metropolitan district at the present time. There could hardly be found seven workers in Massachusetts, taken from all possible sources, who have, in addition to grasp of the method of social investigation as taught in the social service schools, also a sufficient experience in psychopathic work. Just as a special type of worker is required for the blind, and the deaf and dumb, so also a special type of social worker is required in connection with psychopathic cases. It is not so much the soft voice that the blind require, or the knowledge of sign language which the deaf-mute work demands; it is rather a type of original make-up and a special experience with psychopathic cases that we require. The civil service examinations do not afford any reasonable sort of basis for a judgment concerning these capacities and accomplishments. As elsewhere

stated, it is probable that we shall need to develop a new type of lay worker which might be called a mental hygiene officer, — a person, man or woman, with special inborn traits, special accomplishments and deportment, and training in social service method as taught in the schools, and at least six months' special psychopathic hospital work under medical as well as sociological guidance.

The excellent report submitted by Miss Mary C. Jarrett, head of our social service, shows that we have dealt with 311 individual cases of what we term an intensive nature; that we have given what we term slight service to 375 cases; and that we have made 488 reports on other cases in a routine manner to social agencies. Of the 311 so-called intensive cases, 222 were new cases not previously cared for in this manner. The intensive service rendered is exceedingly various, ranging from special history-taking along systematic lines, of advice rendered over suitable periods of time to actual supervision (a sort of unofficial guardianship). Prophylaxis for other members of families has been undertaken in a few cases. It is hard to display in figures the importance of this work. At our various exhibits we occasionally speak of particular cases, many of which have been published in skeleton form in special reports. I infer from Miss Jarrett's report that the conclusion has been established that persons with psychopathic tendencies, who would otherwise be thrown out of industry because of their temperamental difficulties, when properly understood may be kept steadily employed. Miss Jarrett quotes the case of a "skilled steam-fitter who had never done a continuous year's work in his life, who has worked steadily since he became a patient here eighteen months ago;" another example given by Miss Jarrett is that of "an expert chemist, in danger of dismissal two years ago after an alcoholic attack of psychopathic nature, who was returned to his business after two weeks in the hospital, and under supervision has remained a valuable employee to that firm." Of course every one has expected that such institutions as the churches, Salvation Army, the "big brother" plan, and various private agencies could produce such effects. It is an important addition to the sociological technique of governmental organizations if such intensive service as the

above can be proved to be not merely an exceptional flare of success, but a constantly available public method of attack on the problems of psychopathic temperament and disease. One of our charts states in large letters that *the Psychopathic Hospital is for the individual*. Such results, to say nothing of the Men's Club, chiefly for recovered alcoholics (meeting monthly, average attendance last year, 11) and the work of the committee on employment and after-care (100 cases already studied, report to be published by Dr. Adler in the "Mental Hygiene Quarterly," a piece of work paid for privately), indicate that not merely private and semiprivate agencies and volunteer associations can do effective social work, but that public agencies can also do effective work. Just as the juvenile court with its dignity and authority can do a kind of social work which is impossible for most private agencies, so the Psychopathic Hospital with its different but also effective authority and dignity can do work which many private agencies could not accomplish.

The routine reports and slight service need no emphasis except what may be obtained from an analysis of the follow-up service, of which the following is a tabular report for the year Oct. 1, 1915, to Sept. 30, 1916:—

FOLLOW-UP SERVICE.

Report for the Year Oct. 1, 1915, to Sept. 30, 1916.¹

Patients:—

Due to report for first time,	1,259
Reported with reminder,	149
Reported without reminder,	669
Failed to report,	426
Gave legitimate reason for not reporting,	15
Failed to report,	638
For first time,	426
For further visit,	212
Total number who reported as result of reminder,	379
For first time,	149
For further visit,	230

Visits:—

Total visits,	6,635
With reminder,	783
Without reminder,	5,852

¹ This does not include patients on visit from other State hospitals. (See page 56.)

Visits — *Con.*

Patients who reported with reminder for first time,	149
Letter, telephone or notice,	144
Visit,	5
Visits made as result of reminder,	783
Letter, telephone or notice,	754
Visit,	29

New patients reporting for second visit —

Who were due to return within the year,	577
Who reported with reminder,	48
(a) As a result of letter, telephone or notice,	47
(b) As a result of follow-up visit,	1
Who reported without reminder,	312
Who gave legitimate reason for not reporting,	4
Who failed to report,	213

New house patients —

Who were due to return within the year,	375
Who returned with reminder,	38
(a) As a result of letter, telephone or notice,	38
(b) As a result of follow-up visit,	—
Who returned without reminder,	184
Who gave legitimate reason for not returning,	9
Who failed to return,	144

Old patients —

Who were due to return within the year,	254
Who returned with reminder,	55
(a) As a result of letter, telephone or notice,	53
(b) As a result of follow-up visit,	2
Who returned without reminder,	140
Who gave legitimate reason for not returning,	2
Who failed to return,	57

Further visits from all patients —

Made within the year,	5,711
Made as result of reminder,	595
(a) As a result of letter, telephone or notice,	575
(b) As a result of follow-up visit,	20
Made as a result of patient's own initiative,	5,118

*Patients on Visit from Other State Hospitals for the Year Oct. 1, 1915, to
Sept. 30, 1916.*

Patients: —

Due to report for first time,	53
Reported with reminder,	8
Reported without reminder,	33
Failed to report,	12
Failed to report,	39
For first time,	12
For further visit,	27
Total number who reported as result of reminder,	32
For first time,	8
For further visit,	24

Visits: —

Total visits,	126
With reminder,	39
Without reminder,	87

An inspection of this follow-up work will give some picture of the detailed activities of the service, a good idea of which can only be obtained by a visit to the out-patient department in the afternoon.

Another activity of the social service has been the prophylaxis and treatment of syphilitic patients and their families. The service has dealt this year (during the eight months in which work could be carried on) with 158 new families; 161 relatives of patients have been examined; 115 patients have been under treatment; many of these cases have required careful following up to secure their return for treatment. The service has thus been able to meet in part the tendency to lose cases from treatment who were on a satisfactory road to recovery or improvement. As has been repeatedly pointed out by the social service authorities, the effects in many persuasive instances are quite lost if the patients do not return for treatment. This tendency not to return is by so much the larger in institutions for psychopathic subjects, inasmuch as the nature of the mental complications to which patients are subject often prevents their return.

Note is made in the following section of the educational and training activities of the social service.

The social service department is integrally connected with the wards as well as with the out-patient department, but on account of the extramural work of the social service, the administrative and external connections of the social service are more intimate with the out-patient department than with the wards. The out-patient department of the Psychopathic Hospital is now a permanent and established feature of an organization so systematized that we can somewhat closely estimate in advance the work done. There were 1,485 new cases in the out-patient department, an advance upon the figures of last year (1,426). It is remarkable that although no concerted effort toward publicity of this department among the laity has been made, 167 people resorted to the out-patient department on their own initiative; 40 others were sent to the hospital at the suggestion of laymen not connected with public or private agencies; 104 patients were referred by physicians; 364 by public organizations devoted to charity; 193 by hospitals (either by physicians or social service departments); 97 from courts and 69 from schools.

Of after-care cases there were 220 from the Psychopathic Hospital itself and 30 from other State hospitals. Quite the most considerable problem in the out-patient department is the question of mental defect, for which no less than 474 cases were referred. This feature of the out-patient department indicates what value the community attaches to our psychological examination, executed, we believe, upon a more systematic basis than elsewhere, except at the Waverley School for the Feeble-minded itself. Another rather extraordinary feature was that 209 cases were referred to the out-patient department on account of a question whether syphilis of the nervous system was present, and if syphilis was present whether treatment for the patient or the family could be instituted. There were 152 cases referred or resorting for psychoneuroses, and 66 cases for speech defect. There were 88 cases of delinquency, 41 of which were sexual.

If we attempt to analyze the out-patient cases from the standpoint of the social problems presented, we find that a question of medical diagnosis with a view to the rendering of a social decision leads with a list of 464 cases. Four hundred and

thirty-five cases brought up the question of institutional care. Other social problems, such as juvenile delinquency, illegitimacy, sex delinquency, bad home conditions and unemployment, are represented in our groups. For those who feel that social problems are of infinite dimensions, and that perhaps no case is without its problem, socially speaking, it is remarkable to note that no less than 361 of the 1,485 new cases in the out-patient department presented no social problem worth public consideration.

The picture of the out-patient activities is not complete without analysis of the new patients. The resort of new patients (1,485 in all) ranges in months from 93 to 160, but there were in all 9,261 visits by patients during the year, the monthly rate varying from 678 to 938. Accordingly, on each out-patient day there are on an average 32 visits by patients. Those who are familiar with the operation of out-patient departments in general must remember that 32 mental patients in an afternoon, whether their problems are new or old, form a considerable mass of difficult public, social, individual and medical problems for any staff to handle. These cases cannot be dismissed with placebos or fragmentary advice. The standard has been maintained of mental tests where required, of Wassermann examinations of the blood where required, of elaborate history-taking and of systematic recording. Meantime the individuality of the patient must not be forgotten.

The out-patient department is already outgrowing the space planned for it, although at the time of the planning of the hospital many remarks were made as to the excessive space assigned thereto. It may be that before many years have lapsed the remainder of the first floor, between the present out-patient west wing and the general administrative rooms, will need to be taken up by a greatly increased out-patient and social service division.

OUT-PATIENT DEPARTMENT, OCT. 1, 1915, TO SEPT. 30, 1916.

New Patients.

	Male.	Female.
Adults,	318	562
Adolescent,	94	110
Children,	238	151
Infants,	4	8
Totals,	654	831

Sources of Visits.

Public agencies: —

Courts,	97
Schools,	69

Other hospitals: —

Doctors,	155
Social service departments,	38

Charity organizations: —

Private,	38
Public,	364

Individuals: —

Doctors,	104
Miscellaneous,	40

Own initiative, 167

Psychopathic Hospital: —

Wards,	220
Social service department,	193

Total,	1,485
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Reasons for First Visits.

Question of insanity,	94
Question of mental defect,	474
Psychoneurosis,	152
Alcoholism,	45
Drug habit,	7
Speech defect,	66
Sex offence,	41
Juvenile delinquency,	47
Question of syphilis,	209

After-care:—

Psychopathic Hospital,	220
Other State hospitals,	30
All other cases,	100
Total,	1,485

Social Problems presented.

Question of institutional care,	435
Question of vocational guidance,	8
Juvenile delinquency,	63
Sex delinquency,	34
Illegitimacy,	61
Insufficient income,	6
Unemployment,	26
Bad home,	27
Pathological condition,	464
No social problem,	361
Total,	1,485

Classification according to Diagnoses.

Abortive Korsakoff's disease,	1
Alcoholism,	22
Alcoholism, acute,	2
Alcoholism, chronic,	9
Alcoholism+cerebrospinal syphilis,	1
Alcoholism+feeble-minded,	1
Alcoholism+morphine,	1
Alcoholism+motor aphasia,	1
Alcoholism, periodic,	1
Alcoholism+question of epilepsy,	1
Alcoholism+question of dementia præcox,	1
Alcoholism+syphilis,	2
Alcoholism+question of syphilis,	1
Alcoholic delusional insanity,	2
Alcoholic deterioration,	1
Alcoholic hallucinosis,	17
Alcoholic hallucinosis+arteriosclerosis,	1
Alcoholic insanity,	2
Alcoholic insanity+feeble-mindedness,	1
Arteriosclerosis,	3
Arteriosclerosis+alcohol,	1
Arteriosclerosis (cerebral),	2
Arteriosclerosis, question of,	3
Arteriosclerosis, question of,+question of paralysis agitans,	1
Arteriosclerotic dementia,	1

Arthritis,	1
Bulbar paralysis,	1
Cardiac insufficiency—mitral regurgitation,	1
Cardiorenal disease,	2
Cerebral concussion,	1
Character anomaly,	1
Chorea,	10
Constitutional defect,	1
Constitutional inferiority,	1
Compulsory neurosis,	1
Debility,	1
Debility—constipation,	1
Defective,	2
Defective delinquent,	3
Defective, following an attack of dementia præcox,	1
Deferred,	144
Delirium tremens,	18
Delirium tremens, question of,	1
Delirium tremens+alcoholic epilepsy,	1
Delirium tremens+epileptoid seizures,	1
Delinquent,	34
Delinquent—no mental disease,	1
Delinquent+question of congenital syphilis,	1
Dementia præcox,	55
Dementia præcox, question of,	11
Dementia præcox, question of, or manic depressive,	2
Dementia præcox—paranoid,	1
Dementia simplex,	2
Drug habit,	1
Drug psychosis+syphilis,	1
Emotional defect,	1
Epilepsy,	21
Epilepsy+alcoholism,	2
Epilepsy+feeble-mindedness,	3
Epilepsy, question of specific origin,	1
Epilepsy, question of,+congenital syphilis,	1
Epilepsy, question of,+question of dementia præcox,	1
Epilepsy, question of,+question of psychopathic personality,	1
Epilepsy+question of cerebrospinal syphilis,	1
Epilepsy+syphilis,	1
Epilepsy or hysteria,	2
Exhaustion psychosis, question of, or manic-depressive insanity,	1
Feeble-minded,	254
Feeble-minded+alcoholism,	2
Feeble-minded+alcoholic hallucinosis,	1
Feeble-minded+alcoholic hallucinosis (question of dementia præcox),	1

Feeble-minded + congenital syphilis,	2
Feeble-minded + chorea,	1
Feeble-minded + defective delinquent,	1
Feeble-minded + dementia præcox,	1
Feeble-minded + question of dementia præcox,	1
Feeble-minded + drug habit,	1
Feeble-minded + hysteria,	1
Feeble-minded (infantilism),	1
Feeble-minded + hyperthyroidism + syphilis,	1
Feeble-minded + morphine,	1
Feeble-minded (Mongolian idiot),	1
Feeble-minded (question of Mongolian idiot),	1
Feeble-minded + neurosyphilis,	1
Feeble-minded + psychosis of deafness,	1
Feeble-minded, question of,	8
Feeble-minded + question of congenital syphilis,	3
Feeble-minded + question of cerebral disease,	1
Feeble-minded + question of congenital syphilis,	1
Feeble-minded + question of psychosis,	1
Feeble-minded + speech defect,	1
Feeble-minded + syphilis,	9
Flatfoot + syphilis,	1
Friedreich's ataxia, question of,	1
Friedreich's disease,	1
General paresis,	19
General paresis, question of,	5
Hemiplegia, question of,	1
Hyperthyroidism,	2
Hyperthyroidism, question of,	1
Hysteria,	14
Hysteria + feeble-minded,	1
Hysteria, not insane,	1
Hysteria + question of dementia præcox,	1
Hysteria, question of, or petit mal,	1
Imbecile,	1
Infection delirium,	1
Involutional depression or psychoneurosis,	1
Involutional depression,	1
Major chorea,	1
Manic depression or dementia præcox,	1
Manic-depressive insanity,	28
Manic-depressive insanity (manic phase),	2
Masturbation,	1
Migraine—question of hyperthyroidism,	1
Mitral insufficiency + syphilis,	1
Morphinism,	3
Nephritis,	3

Nervous irritability,	1
Neurasthenia + arteriosclerosis,	1
Neurosyphilis,	5
Neurosyphilis, question of,	1
No nervous or mental disease,	1
Not feeble-minded,	17
Not feeble-minded—deaf mute,	1
Not feeble-minded—delinquent,	1
Not feeble-minded—question of chorea,	1
Not insane,	1
Not insane—manic-depressive insanity (depression),	1
Not insane—not feeble-minded,	82
Not insane, not feeble-minded, question of psychopathic personality,	1
Not luetic,	131
Occupational neurosis,	1
Organic dementia,	1
Organic disease, question of,	1
Paræsthesia,	1
Paralysis agitans,	2
Paranoia,	2
Paraphrenia,	1
Petit mal,	3
Post-operative neurosis,	1
Post-apoplectic psychosis,	1
Presenile dementia,	2
Psychasthenia,	2
Psychopathic personality,	22
Psychopathic personality, question of,	2
Psychopathic personality + morphinism,	1
Psychopathic personality + retarded,	1
Psychopathic personality + syphilis,	2
Psychopathia sexualis,	1
Psychoneurosis,	90
Psychoneurosis, question of,	20
Psychoneurosis, question of, or manic depression,	2
Psychoneurosis or psychopathic personality,	1
Psychoneurosis or psychosis,	1
Psychoneurosis + menopause,	1
Psychoneurosis + pulmonary tuberculosis,	1
Psychoneurosis + question of petit mal,	1
Psychoneurosis + question of dementia præcox,	2
Psychoneurosis—heart disease,	1
Psychosis, question of,	1
Psychosis, question of beginning,	1
Psychosis, defective or beginning,	1
Psychosis, unclassified,	2

Psychosis, unclassified alcoholic,	1
Ptosis of eyelid,	1
Pulmonary tuberculosis+exhaustion psychosis,	1
Retardation+psychopathic personality,	1
Retarded,	59
Retarded (probably feeble-minded),	1
Retarded mentally,	3
Retarded mentally+speech defect,	1
Retarded+congenital syphilis,	2
Retarded+question of congenital syphilis,	1
Sciatica,	1
Senile dementia,	2
Senile dementia, question of,	1
Senility,	2
Sex delinquent+syphilis+gonorrhœa,	1
Sexual neurasthenia,	1
Short delirium tremens or alcoholic hallucinosis,	1
Speech defect,	53
Speech defect+congenital syphilis,	1
Speech defect+question of feeble-mindedness,	1
Subnormal,	19
Subnormal, probably feeble-minded,	1
Subnormal+syphilis,	1
Symptomatic psychosis,	1
Syphilis,	20
Syphilis, question of,	2
Syphilis—no mental disease,	1
Syphilis, cerebral,	1
Syphilis, cerebral, question of,	1
Syphilis, cerebral, or general paresis,	1
Syphilis, cerebrospinal,	3
Syphilis, congenital,	20
Syphilis, question of congenital,	8
Syphilis, congenital+feeble-minded,	1
Syphilis, congenital+question of feeble-minded,	1
Syphilis, congenital+retarded,	1
Syphilis, latent,	13
Syphilis, latent, question of syphilitic epilepsy,	4
Tabes,	1
Tabes, question of,	1
Tabes+alcoholic polyneuritis,	1
Tabo-psychosis,	1
Toxic psychosis,	2
Traumatic insanity,	2
Traumatic insanity, question of,	1
Traumatic neurosis,	1
Traumatic neurosis, question of,	1

Unclassified,	8
Unclassified dementia,	1
Unclassified hallucinosis,	1
Unclassified paranoid condition,	3
Unclassified, question of dementia præcox,	1
Unclassified sclerotic dementia,	1
Writer's cramp,	2
Total,	<hr/> 1,485

Number of New Patients Each Month.

1915.	
October,	113
November,	124
December,	111
1916.	
January,	115
February,	128
March,	160
April,	143
May,	146
June,	137
July,	105
August,	93
September,	110
Total,	<hr/> 1,485

Number of Visits Each Month.

1915.	
October,	679
November,	740
December,	678
1916.	
January,	715
February,	756
March,	796
April,	795
May,	938
June,	780
July,	757
August,	872
September,	755
Total,	<hr/> 9,261

V. GENERAL AND MEDICAL EDUCATIONAL ACTIVITIES (CONFERENCES, MEDICAL CLINICS, SOCIAL CLINICS).

The vicinity of the Psychopathic Hospital to numerous school and hospital agencies interested in medical nursing and a variety of social problems has had for its result a continued and increasing utilization of the Psychopathic Hospital material for general and medical educational purposes. Not a month passes but that an organization, lay or medical, requests a conference on some topic of the Psychopathic Hospital work. The method of handling these conferences has been systematized so that the entire organization is able to dispose of them with the least possible friction. Our attitude to the medical and general public is precisely that of the general hospital, like the Massachusetts General Hospital or the Peter Bent Brigham Hospital, except that perhaps we are inclined to welcome strangers more eagerly, as a matter of hospital policy, on the ground that there has been in the past too much concealment of hospital conditions. No one who goes through our wards but fails to inquire where, after all, are the wards for very violent patients. When assured that he has in his ordinarily quiet walk through the wards seen all the violence in the hospital at the time, he is inclined at first to think that our material is somehow milder than that of insane hospitals with which he is familiar. When reminded that the material, particularly Boston police material, and a good deal of the temporary-care group, is as difficult material to manage as any in the district hospitals for the insane, astonishment grows. We have ourselves been astonished at the continued resort of voluntary cases to our hospital, when the newspaper advertising which it gets is rather disconcerting than otherwise, for the newspaper entries concerning the Psychopathic Hospital give the perfectly correct though partial impression that persons observed to be queer or violent or distraught upon the streets form a leading fraction in our intake of patients; that is to say, outside the publicity which our work gets with public, private, hospital and social organizations, the general public can hardly attain an adequate idea of the temporary-care group of cases and of the important group of voluntary admissions.

As the list of lectures given below will show, the assembly room has been very frequently used, often several times during the month, for such conferences. The general public is not invited to these conferences, since the matter of propaganda among the general public is being effectively carried on by the Massachusetts Society for Mental Hygiene, under the charge of its secretary, Dr. Frankwood E. Williams, who, formerly an officer of the hospital, is entirely familiar with its needs, and has emphasized them in numerous public lectures.

Invitations to our conferences are made upon a special address list of physicians, social workers, probation officers and other officials and private persons who are known to have a peculiar and public-spirited interest in the work. It is entirely possible to secure from a selected address list of 1,000 names an audience of 200 or more persons of the most approved medical and social character. More intimate meetings are arranged for groups having interests in special diagnostic, medical and social features. The hospital library, the out-patient waiting-rooms, and rooms on the roof of the pavilion, have been utilized for such similar meetings. The laboratories and out-patient corridors and rooms have been supplied with permanent arrangements for hanging charts and other displays of medical and social data.

Medical practitioners are invited by special arrangements to the staff meetings as well as to the morning staff rounds. The physicians who are applicants under the temporary-care act are invited, as a matter of routine, to consultations over their personal cases, when such cases come up for special study at the staff meetings. The noon staff meetings have become more and more a special feature of the Psychopathic Hospital, and numerous medical and social visitors from distant States have come to these meetings on account of their spreading reputation. The director feels that this process of spreading information about this type of work is proving increasingly effective. Visitors from a distance are often surprised at the lack of newspaper publicity of our work.

One of the most important reasons for establishing the Psychopathic Hospital in its place in the Longwood group of medical institutions was the effect which its material and ideals

would have upon the future practitioner, namely, upon the medical student. There can be no question that the students of the local medical schools are now getting an insight into mental disease such as their predecessors in mental training have often failed to get until they were many years out in practice. It will be recalled that no physician is allowed to make a certificate of insanity (by the provisions of section 32 of chapter 504 of the Acts of 1909) unless he has been in the actual practice of medicine for three years after graduation. This doubtless wise provision of the law, embodied as it is in the law of numerous other States, seems to prove that the public would have no confidence in such a certificate unless a man had become somewhat matured in his attitude to the public, social and medical problems of insanity. It is a curious thing that the medical graduate of the present time in Boston, in Ann Arbor and in Baltimore is probably far better able to make a certificate in insanity upon graduation than any of the graduates in medicine of much greater age and more mature experience. The mental cases are taken by the student no longer as *curiosa*, but as medical problems. There can be no doubt that observations of the medical men made thus early in their medical training upon public and social problems will give physicians of the future in our community a much superior and more effective grasp of public and social problems, will make them public-spirited, and will tend, as the phrase is, to socialize them; but more important still, these practitioners will be able early to cope with the problems of feeble-mindedness at an early age in their patients, with the problems of alcoholism and delirium tremens as seen in general practice, and with the highly important matter of early treatment of syphilis of the nervous system. What effect this may have on the future intake of the insane into our district hospitals is a matter for conjecture only. It may be that our district hospitals will never diminish the number of patients taken in, and they may even increase the number, but it is possible that the quality of the cases admitted will gradually alter in such wise that milder and milder and more and more incipient cases will be referred to State hospitals by physicians having confidence that the highest grade of psychopathic hospital service is available for cases demanding it, and that the

highest grade of receiving ward service will be immediately available for cases requiring direct commitment to the district hospitals.

One effect of our recent work has been to widen the scope of the Psychopathic Hospital activities thus: whereas there were in 1915, 514 regular court commitments to the Boston State Hospital out of 721 regular commitments in all, during the present year, 1916, there have been 399 commitments to the Boston State Hospital out of the larger total number, 831, of regular court commitments. The number of temporary-care cases has increased at this time from 1,083 to 1,213, but this increase has been largely from non-metropolitan districts. The argument is plain that the extension of the psychopathic hospital grade of service is gathering force.

The routine of our staff rounds and staff meetings has been discussed somewhat elaborately in previous reports; and will be omitted here. Staff rounds have continued to be attended by an increasing number of practitioners and medical visitors. Medical students have been allowed to attend these rounds to the number of four at a time. They run from 8.10 to 9.30 or 10 A.M.

Some 200 of the 1,900 admissions of the year were brought into special staff meetings from 12 M. to 1 P.M. These meetings are in part of forensic and medicolegal interest, and take up cases sent to the hospital for special court purposes, and in part medical. The medical cases are divided into two groups, first, cases in which there has been an important split in diagnosis on the part of the staff are gone over in detail, and the differential diagnosis rendered in view of the literature and the best available opinions. The plan is to bring into these differential diagnostic meetings only those cases in which all the medical, social and historical data are available, and in which the data of Wassermann reaction, the psychological examination and the special interview by the clinical historian are at hand.

Another medical group of cases is the group in which psychiatric theory is at issue. In this group might be included, for example, cases of highly elaborate delusional system formation, in which the theoretical process of delusion formation may

stand out in relief; or cases in which particular forms of evolution of alcoholism or character change are particularly clear. In short, the staff meetings have not only practical forensic importance and practical results in establishing difficult differential diagnosis, but they have also a theoretical significance. The careful stenographic reports of these meetings have proved of great value. They are gone over by the committing physicians with interest, since difficult judgments as to committability occur in precisely those cases in which the staff has thought it wise to discuss its difficulties in full conclave at the staff meeting. The records of these staff meetings are also of service in court cases where the cumulative evidence of the concurrent opinions of numerous competent alienists is of decisive value when pitted against the *ex parte* opinions of alienists who have been given perhaps only one side of the story by their attorneys.

The same* holds for the difficult cases of the Industrial Accident Board group. The records of questionnaires of patients, which often occupy fifteen minutes to half an hour of the total staff meeting, are likewise of value, and permit from time to time the issuance of psychiatric papers on obscure and theoretical topics.

VI. LECTURES AND PUBLICATIONS.

Lectures given at the Psychopathic Hospital during the year are as follows:—

A course of lectures, in the school for health officers, was given as follows: February 3 by Miss M. C. Jarrett; February 10 by Dr. F. E. Williams; February 17 by Prof. R. M. Yerkes; February 24 and March 1 by Dr. E. E. Southard; and March 10 by Dr. H. M. Adler.

On June 10, 1916, the fourth annual conference on the medical and social work of the hospital was held, with program as follows:—

- I. The classes of service rendered by the Psychopathic Hospital, medical, public, social, individual. Mary C. Jarrett.
- II. Social service from the medical and psychiatric points of view. Herman M. Adler.
- III. The administrative problem of the Psychopathic Hospital. E. H. Cohoon.
- IV. The situation in the problem of brain syphilis. H. C. Solomon.

- V. Advances in psychological examinations, especially of psychopathic patients. R. M. Yerkes.
- VI. Mental hygiene and preventive medicine. T. W. Salmon.

On Oct. 28, 1916, a conference on aspects of psychological examining was held at the Massachusetts School for Feeble-minded, Waverley, with the following program: —

- I. Present status of methods for measuring intellectual and affective reactions. Robert M. Yerkes.
- II. Brain complexity in relation to results of psychological examinations. E. E. Southard.
- III. Methods of detecting and measuring mental deterioration. Sidney L. Pressey.
- IV. A point scale for the measurement of intelligence in adolescent and adult individuals. (Read in abstract.) Cecilio S. Rossy.
- V. The weighing of point scale tests: a criticism of the original point scale, and suggested improvements. Rose S. Hardwick.
- VI. Criteria for the proper evaluation of tests and test series. Florence Mateer.
- VII. The significance of point scale coefficients of intelligence. Louise Wood.
- VIII. Comparison of point scale and Binet measurements of mental defectives in the school for feeble-minded, Waverley. Josephine M. Curtis.

Papers read in abstract as follows: —

- Studies of intellectual defectives and cases of dementia præcox by the multiple choice method. C. S. Rossy.
- Educational performance in relation to mental status. Marjorie H. Rossy.
- The standardizing of supplementary psychological methods at the Psychopathic Hospital. M. H. Rossy.
- A method of measuring ideational efficiency. Robert M. Yerkes.

At a conference on neurosyphilis and its treatment, held at Grafton State Hospital, Nov. 17, 1916, papers read included one on "Results of Treatment of Fifty Cases of Cerebral Syphilis (Parenchymatous and Meningovascular)," by H. C. Solomon, and on "General Results," by E. E. Southard.

*List of Contributions of the Massachusetts Commission on Mental Diseases
from the Psychopathic Hospital, 1916.*

- 1916.1. C. S. Rossy. Report on the Mental Examination of Three Hundred Prisoners at the Massachusetts State Prison. State Board of Insanity Bulletin, January, 1916.
- 1916.2. H. M. Adler. Unemployment and Personality: A Study of Psychopathic Cases. Journal of Mental Hygiene, Vol. 1, No. 1, January, 1917, pp. 16-24.
- 1916.3. E. E. Southard. On the Application of Grammatical Categories to the Analysis of Delusions. Philosophical Review, Vol. XXV, No. 3, May, 1916.
- 1916.4. R. M. Yerkes. Mental Examination of Police and Court Cases. Journal of Criminal Law and Criminology, Vol. VII, No. 3, September, 1916.
- 1916.5. R. M. Yerkes. The Use of the Binet Method in Hospitals for the Insane. To appear in quarterly bulletin of Massachusetts Commission on Mental Diseases, 1917.
- 1916.6. H. M. Adler. Indications for Wet Packs in Psychiatric Cases. An analysis of 1,000 Packs given at the Psychopathic Hospital, Boston. Boston Medical and Surgical Journal, Nov. 9, 1916, Vol. CLXXV, No. 19, pp. 673-675.
- 1916.7. H. M. Adler. The Cholesterol Content of the Blood in Psychopathic Patients. Transactions of American Association of Clinical Research, 1916.
- 1916.8. E. E. Southard. On Descriptive Analysis of Manifest Delusions from the Subject's Point of View. Journal of Abnormal Psychology, August-September, 1916, Vol. XI, No. 3, pp. 189-202.
- 1916.9. R. M. Yerkes. Educational and Psychological Aspects of Racial Well-being. Journal of National Educational Association, Vol. 1, No. 3, November, 1916, and Journal of Delinquency, Vol. 1, No. 5, November, 1916.
- 1916.10. E. E. Southard. Remarks on Social Research in Public Institutions. Proceedings of National Conference on Charities and Correction, 1916.
- 1916.11. E. E. Southard. Remarks on Psychopathic Delinquents. Proceedings of the National Conference on Charities and Correction, 1916.
- 1916.12. E. E. Southard. The Psychopathic Hospital's Function of Early Intensive Service for Persons not Legally Insane. Proceedings of the National Conference on Charities and Correction, 1916.
- 1916.13. R. M. Yerkes and Louise Wood. Methods of expressing Results of Measurements of Intelligence: Coefficient of Intelligence. Journal of Educational Psychology, Vol. 7, No. 10, December, 1916, pp. 595-606.

- 1916.14. J. B. Rieger and H. C. Solomon. Spinal Fluid Sugar. Boston Medical and Surgical Journal, Vol. CLXXV, No. 23, Dec. 7, 1916, p. 817.
- 1916.15. Anne B. Stedman. An Outline of the Elements of Stammering. Boston Medical and Surgical Journal, Vol. CLXXV, No. 23, Dec. 7, 1916, pp. 818-819.
- 1916.16. Thomas H. Haines. The Genesis of a Paranoic State: Delusions of Persecution based upon a Character Defect in Volitional Equipment. Journal of Abnormal Psychology (to appear February, 1917).
- 1916.17. Egbert W. Fell. Fatty Degenerative Changes in the Purkinje Cell Belt in Exhaustive Infective Psychoses. Boston Medical and Surgical Journal, Vol. CLXXV, No. 23, Dec. 7, 1916, pp. 819-822.
- 1916.18. C. S. Rossy. The Yerkes-Bridges Point Scale: as applied to Candidates for Employment at the Psychopathic Hospital. Boston Medical and Surgical Journal, Vol. CLXXV, No. 23, Dec. 7, 1916, pp. 822-824.
- 1916.19. M. C. Jarrett. The Intensive Group of Social Service Cases. Boston Medical and Surgical Journal, Vol. CLXXV, No. 23, Dec. 7, 1916, pp. 824-830.
- 1916.20. H. M. Wright. Routine Mental Tests as the Proper Basis of Practical Measures in Social Service: a First Study made from 30,000 Cases cared for by 27 Organizations in Boston and Surrounding Districts. Boston Medical and Surgical Journal, Vol. CLXXV, No. 26, Dec. 28, 1916, pp. 934-948.
- 1916.21. H. M. Adler. A Psychiatric Contribution to the Study of Delinquency. To appear in Journal of Criminal Law and Criminology, 1917.
- 1916.22. E. E. Southard. On the Dissociation of Parenchymatous (Neuronic) and Interstitial (Neuroglia) Changes in the Brains of Certain Psychopathic Subjects, especially in Dementia Præcox. Transactions of Association of American Physicians, 1916.

VII. ALUMNI.¹

NAME.	Position.	Period of Service.	Present Position.
Herman M. Adler, M.D., .	Chief of staff,	June 1, 1912-Sept. 19, 1916, .	Head of Cook County Survey for National Committee on Mental Hygiene, Chicago.
Victor V. Anderson, M.D., .	Out-patient physician,	Oct. 1, 1912-Oct. 1, 1913, .	Medical probation officer, municipal court, Boston.
Heman L. Chase, M.D., .	In training, State Board of Insanity training course.	Jan. 20-July 31, 1916, .	Assistant physician, Boston State Hospital.
George E. Eversole, M.D., .	Interne and assistant physician,	August, 1912-March, 1914, .	In charge of special mental patient.
Gertrude G. Fisher, M.D., .	Interne and junior assistant physician,	Aug. 1, 1915-July 31, 1916, .	Assistant to Dr. Flexner, Rockefeller Institute, New York.
Harriet M. Gervais, M.D., .	Interne and assistant physician,	Aug. 15, 1913-July 14, 1916, .	Assistant physician, Children's Hospitals, Randall's Island, N. Y.
Edward T. Gibson, M.D., .	Interne and assistant physician,	Dec. 1, 1914-July 18, 1916, .	Clinical director and pathologist, Connecticut State Hospital, Middletown.
Thomas H. Haines, M.D., .	Assistant physician,	June 16, 1913-Sept. 1, 1914, .	Medical director, Juvenile Research Bureau, Columbus, Ohio.
James F. Krasnye, M.D., .	Interne,	March 1, 1915-Oct. 1, 1915, .	Unknown.
W. P. Lucas, M.D., .	Chief of out-patient staff,	Oct. 1, 1912-June 21, 1913, .	Professor of pediatrics, University of California, Berkeley.
Wm. A. MacIntyre, M.D., .	Interne and assistant physician,	May 19, 1914-Oct. 1, 1915, .	Assistant physician, Grafton State Hospital, Worcester, Mass.
James F. McFadden, M.D., .	Interne and assistant physician,	June 23, 1913-Apr. 15, 1915, .	First assistant physician, Foxborough State Hospital, Foxborough, Mass.
George E. McPherson, M.D., .	Junior assistant and assistant physician,	June 30, 1915-May 24, 1916, .	Assistant superintendent, Medfield State Hospital, Harding, Mass.
A. Myerson, M.D.,	Assistant physician,	Oct. 1, 1912-Oct. 1, 1913, .	Clinical director and pathologist, Taunton State Hospital, Taunton, Mass.
Cornelia B. J. Schorer, M.D., .	Interne and junior assistant physician,	July 5, 1914-July 15, 1916, .	Resident physician, Psychopathic Hospital, Bedford Hills Reformatory, New York.
Harry C. Solomon, M.D., .	Interne and assistant physician,	Sept. 1, 1913-Nov. 15, 1915, .	Special investigator of brain syphilis, Massachusetts Commission on Mental Diseases, and acting clinical director, Psychopathic Hospital, Boston.
Geneva Tryon, M.D., .	Assistant physician,	Mar. 15-Sept. 15, 1914, .	Assistant physician, Boston State Hospital.

S. E. Vosburgh, M.D.,	Executive assistant,	June 1-Dec. 1, 1912,	Assistant superintendent, Maine State Hospital, Augusta, Me.
Frankwood E. Williams, M.D.,	Business manager,	June 16, 1913-May 12, 1914,	Secretary, Massachusetts Committee on Mental Hygiene, Boston, Mass.; editor-elect, "Mental Hygiene Quarterly," National Committee for Mental Hygiene, New York.
E. E. Southard, M.D.,	Director,	May 1, 1912,	Still on service.
E. H. Cohoon, M.D.,	Administrator,	Aug. 21, 1915,	Still on service.
Anna C. Wellington, M.D.,	Executive assistant,	May 1, 1914,	Still on service.
A. P. Noyes, M.D.,	Senior assistant physician,	Mar. 31, 1916,	Still on service.
A. W. Stearns, M.D.,	Out-patient physician,	Nov. 15, 1915,	Still on service.
James T. Adams, M.D.,	Assistant physician,	Dec. 10, 1915,	Still on service.
Chas. E. Sandoz, M.D.,	Out-patient physician,	Apr. 11, 1916,	Still on service.

¹ Including those medical officers who have been connected with the hospital for *six months' full time* or its equivalent.

VIII. ACKNOWLEDGMENTS.

I have the duty and pleasure of acknowledging numerous gifts to the hospital, as follows: —

From Mrs. Fiske, magazines.

From Miss Hayns, magazines.

From Mr. Ralph Bryan, magazines.

From Miss Hale, box of books.

From Mrs. Williams.

From Mrs. Fiske, "Ladies' Home Journal" and "Woman's Home Companion" for one year.

From Mr. Edward McMulkin, flowers.

From Mr. Thomas Buckley, magazines.

From Rev. George T. Prescott, magazines.

From Miss Edith Heyes, magazines (second lot).

From Mrs. J. J. O'Brien, 10 quarts of ice cream.

The social service department has also been the recipient of donations, as follows: —

Miss Olive Barrows, Christmas gifts.

Miss Lucy M. Brigham, materials for Christmas gifts.

Mrs. Edward Burnett, clothing.

Mrs. John W. Carter, sums of money for various purposes.

Fragment Society, materials to be made into clothing.

Frederick E. Weber Charities Corporation, fund for incidental expenses in care of patients.

Mrs. Charles S. Gooding, money for use of special patient.

Miss Elizabeth P. Hamlen, books for social service library.

Hebrew Benevolent Society, money for special patient.

Invalid Aid Society, money for special patient.

King's Chapel Sunday School, money for Christmas gifts.

Mr. Philip C. Kneil, magazines.

Ladies Alliance, First Parish Church, books, magazines, clothing.

Mrs. Horatio A. Lamb, sum of money for salvarsan.

Lend-a-Hand Society, money and clothes for use of special patients.

Mrs. William A. Lombard, toys, clothing.

Mrs. Elizabeth Mather, materials for Christmas gifts.

Mrs. Daniel A. Rollins, clothing.

Mrs. Herbert M. Sears, money for special patient.

Mrs. Brackley Shaw, books, magazines, materials for Christmas gifts.

Miss Helen Shaw, clothing.

United Hebrew Benevolent Association, money for special patient.

Waitt & Bond, Inc., cigars for Men's Club and Christmas Tree.

Contributions for the work of the committee on employment and after-care have been received from the following: Mrs. Richard B. Carter; Dr. Marshall Fabyan; Mrs. J. L. Grandin, Jr.; Mrs. Henry S. Grew; Miss D. Q. Hale; Mr. Horatio A. Lamb; Mr. and Mrs. A. Lawrence Lowell; Miss Eleanor S. Parker; S. S. Pierce Company; Mr. Roscoe Pound; Mrs. T. R. Powell; Mr. Herbert M. Sears; Mrs. Alexander F. Wadsworth.

Contributions for the salary of a special worker for the syphilis service have been received from the following: Mr. Louis Baer; Mrs. Shepherd Brooks; Mr. George Coleman; Mrs. W. Scott Fitz; Mr. Lee M. Friedman; Mrs. Mary Morton Kehew; Mr. Louis E. Kirstein; Miss Annette P. Rogers; Mr. Herbert M. Sears; Dr. F. P. Sprague; Mr. Galen L. Stone; Mr. Edward Clark Streeter; Miss Alice P. Tapley; Mrs. Alexander F. Wadsworth.

Contributions for treatment for a special patient in response to an appeal in the "Boston Transcript" were received from the following: Miss Ida G. Beal; Mrs. R. M. Clark; Mrs. Frances Coates; Mrs. James S. Lee; Mrs. F. Gordon Dexter; Miss Irene Hayward; Miss Sadie Hayward; Miss Mary C. Spaulding.

A number of anonymous contributions were also received.

In addition to the above donations, a number of anonymous donors have contributed sums of money for various purposes. An anonymous donor has also contributed a pool table for the use of ward patients.

The following books have been bought for the social service office through a private donation: —

Beveridge, "Unemployment."

Conyngton, "How to Help."

Warner, "American Charities."

Seager, "Principles of Economics."

McDougall, "Social Psychology."

Shand, "Foundations of Character."

The following have been donated:—

Addams, "Twenty Years at Hull House."

Devine, "Spirit of Social Work."

Woods, "Americans in Process."

Cabot, "Social Service and the Art of Healing."

Shaler, "The Neighbor."

Hall, "Youth."

Key, "Education of the Child."

Lee, "Constructive Philanthropy."

Washington, "Up from Slavery."

With more than ordinary gratitude to my authorities and my colleagues,

Respectfully,

E. E. SOUTHARD, M.D.

REPORT OF THE PATHOLOGICAL
LABORATORY.

To the Superintendent of the Boston State Hospital.

Following is a report of the pathological laboratory for the year ending Sept. 30, 1916.

The laboratory has been conducted on the same general lines as during the previous year.

<i>Routine Work.</i>	
Autopsies,	42
Urinalyses,	574
Cerebrospinal fluid examinations,	203
Blood counts,	234
Agglutination reactions (for dysentery),	81
Widal reactions on food handlers,	22
Bacteriological examinations,	207
Gastric analyses,	2
Surgical specimens,	12
<hr/>	
Total,	1,377
Laboratory staff meetings,	12
Lectures and quizzes for nurses,	11
Autopsies and viewings for State Board of Insanity,	10

The percentage of autopsies to the total number of deaths is 22.2.

Prophylactic vaccination against the dysentery and diarrhoea which prevailed in the infirmary and Cowles Buildings during 1915, and which was due to a member of the paratyphoid-enteritis group, has been carried on quite extensively this year. All the Cowles patients, and such of the women infirmary patients as were strong enough to stand the treatment, have been given three doses one week apart, the first, 500,000,000, the last two 1,000,000,000. It has been found that the disease

cannot be entirely eliminated by vaccination, but that the cases which develop after it are, almost without exception, of the mild diarrhoeal instead of the dysenteric type. Immunity, after either the disease or prophylactic vaccination, appears to be irregular, and usually of short duration. It seems probable, however, that without vaccination cases of this infection during the past summer would have been both more numerous and more severe. As far as the writer is aware, the present is the first experiment in vaccinating against dysentery caused by the paratyphoid-enteritis group under the conditions of an insane hospital.

Research Work. — The studies on the histopathology of the sympathetic system and on the dysentery epidemic have been prepared for publication.

The examination of the brains of aphasics by serial sections is being continued.

The new work on hand includes a study of the brains of patients who have had during life anomalous or irregular gold chloride reactions, and further work on the reaction in post-mortem cerebrospinal fluids; also a study of the internal ear in selected autopsy cases.

Miss Marion S. Stone, A.B., has given efficient service as laboratory assistant.

Mr. John C. Rock of the Harvard Medical School was laboratory interne during the summer, and helped much with the routine work.

Respectfully,

M. E. MORSE,
Pathologist.

REPORT OF THE SOCIAL SERVICE DEPARTMENT.

To the Superintendent of the Boston State Hospital.

I herewith submit a report of the social service work done for the year ending Nov. 30, 1916.

On July 1, 1916, an analysis was made of the work done during the third complete year of social service at this hospital. The accompanying table shows this in summary.

Total number of cases referred to social service department,	249
After-care cases: —	
Arrangements for discharge, employment, etc.,	28
Supervision, as follows: —	
Reported after social service visit,	36
Patient seen and condition ascertained,	37
Relatives interviewed, condition ascertained,	36
Not found,	3
Returned to hospital through social service,	10
Visit renewed, through social service,	4
	126
Investigation, boarding out, miscellaneous problems,	95
Total,	249

At present the work being done is divided into two large groups, — after care and family care. A third miscellaneous group consists of all urgent questions arising, which are attended to as they come up.

The system of looking after patients who are on visit, which was described in the last annual report, has proved effective. We can this year account for every patient who has been discharged from trial visit. Either they have reported in person at the hospital, or have been visited by the social worker, unless they were known to have left the city.

In the family-care group, 27 cases were considered for boarding out, of whom 20 were placed. In connection with this work 71 caretakers, agencies, etc., were visited in efforts to find suitable homes, this being attended with considerable difficulty. Living expenses in and near the city are so great that the rate of board we are allowed to pay is inadequate. Our patients who are placed in family care are not able to do enough work to make them of any great value in a household. There is also great prejudice against our patients, though this is being overcome. Without doubt there are many suitable homes in the suburbs which will be found in time. Meanwhile great care must be exerted to get the best we can.

The usual course of lectures was given to the senior class of nurses. Many expressed a hope that they might be privileged to do some practical work. This was not possible, however, owing to the pressure of work, both in this department and in the training school.

Our friendly relations continue with outside agencies. Reports are exchanged and advice sought and given.

The work here has been explained to several clubs. One talk was given through arrangements with the Massachusetts Society for Mental Hygiene.

The year closes with plans for future work well in hand. We have not developed as much as it was hoped we might, but the year past has seen progress and not retrogression. The effort has been to do what we could do well and get results, rather than to extend merely the volume of the work.

Respectfully submitted,

GERTRUDE L. FLETCHER,

Social Worker.

Nov. 30, 1916.

SUPERINTENDENT OF NURSES' REPORT.

To the Superintendent of the Boston State Hospital.

I herewith submit the sixteenth annual report of the training school for nurses.

Graduating Class of 1916.

Maude Carew Beckwith.	Christena A. McIver.
Edna Dora Brett.	Elizabeth Cynthia McPherson.
Jane May Dinsmore.	Julia Marie Mehigan.
Ida Dow.	Emma Jane Pearce.
Margaret Catherine Dunn.	Doris Reed.
Julia Sophia Harnish.	Anna Ross.
Mary Alston Herron.	Muriel Estelle Squires.
Henrietta Josephine Lannon.	Marjorie Viola Wilson.
Dora Merrill Lunt.	Jennie Cecilia Young.

Nursing Staff.

	Men.	Women.	Totals.
Superintendent of nurses,	-	1	1
Assistant superintendents of nurses (one graduate of this school; one graduate of another school).	-	2	2
Supervisors, day: —			
Graduates of this school,	-	5	5
Not graduates,	2	-	2
Supervisors, night: —			
Graduates of this school,	1	2	3
Head nurses: —			
Graduates of this school,	-	11	11
Graduates of other schools,	-	5	5
Seniors,	-	9	9
Attendants,	7	5	12
Day nurses: —			
Graduates of this school,	-	-	-
Graduates of other schools,	1	3	4
Pupils,	1	35	36

Nursing Staff — Concluded.

	Men.	Women.	Totals.
Day nurses— <i>Con.</i>			
Attendants,	36	25	61
Probationers,	1	9	10
Affiliated,	—	5	5
Night nurses:—			
Pupils,	—	12	12
Attendants,	19	14	33
Probationers,	2	1	3
Totals,	69	144	213

NOTE. — Twenty-seven women nurses and attendants are employed in wards occupied by male patients.

Accepted during the Year.

	Men.	Women.
Probationers,	4	61
Attendants,	154	39
Graduates of this school re-employed,	—	2
Graduates of other schools,	—	8

Left during the Year.

Graduates of this school,	2	19
Graduates of other schools,	—	8
Pupils,	—	22
Attendants,	130	45
Probationers,	—	28

The school opened this year with an attendance of 65 pupils, as follows:—

	Men.	Women.
Seniors,	—	25
Intermediates,	—	7
Juniors,	—	17
Probationers,	4	7
Attendants (who have not had high school or equivalent),	—	5

The training school this year graduated 18 nurses, making a total of 155 graduates since it was organized.

During the past year the senior nurses have taken their usual six months' course at the Boston City Hospital, and the City Hospital nurses have come for their three months' course at this hospital four times during the year.

Two valuable workers in the training school resigned during the past year, — Miss Jessie M. Buist, assistant superintendent of nurses, after many years' efficient service; and Miss Jean Taylor, assistant superintendent of nurses, who accepted a position as superintendent of nurses at the Danvers State Hospital.

We have secured the services of Miss Anna C. Whitley as instructor of the training school. Miss Whitley is a graduate of the Sibley Memorial Hospital, Washington, D. C., and has had many years' experience in this line of work. Miss Elizabeth M. Sheehan, a graduate of our school, has taken up the duties of assistant superintendent of nurses at the west group.

This year we are entering upon our three years' course of training for nurses, with an affiliation of nine months, minimum length of time, in a general hospital.

Respectfully submitted,

JANE ROBERTSON, R.N.,

Superintendent of Nurses.

Nov. 30, 1916.

VALUATION.

Nov. 30, 1916.

REAL ESTATE.

Buildings and 152 acres of land taken from the city of

Boston Dec. 1, 1908,	\$1,065,754 05
Land and buildings since Dec. 1, 1908,	1,197,253 95
Psychopathic department, land and buildings,	577,221 37

 \$2,840,229 37

PERSONAL PROPERTY.

Travel, etc.,	\$4,097 11
Food,	6,420 24
Clothing,	11,802 25
Furnishings,	79,246 36
Heat, light and power,	125 62
Repairs and improvements,	6,579 01
Farm, stable and grounds,	14,741 64
Medical and general care,	14,639 18
Industries,	3,429 02

 \$141,080 43

SUMMARY.

Real estate,	\$2,840,229 37
Personal property,	141,080 43

 \$2,981,309 80

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1916: —

CASH ACCOUNT.

Balance Dec. 1, 1915,	\$11,638 57
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Receipts.

Institution Receipts.

Board of inmates:—

Private,	\$25,455 45
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Reimbursements, insane,	19,893 36
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\$45,348 81

Sales: —

Food,	\$1,020 94
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Clothing and materials.	161 75
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Furnishings and household sup-

plies,	181	15
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Heat, light and power,	975 00
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Farm and stable:—

Cows and calves,	\$714 00
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Pigs and hogs,	268	80
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Hides,	.	.	64	11
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Sundries, . . .	2,721 44
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3,768 35

Repairs, ordinary,	381 70
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6,488 89

Miscellaneous receipts: —

Interest on bank balances,	\$360 82
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Sundries,	298 35
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659 17

52,496 87

Sales account industries fund,	283 45
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Receipts from Treasury of Commonwealth.

Maintenance appropriations:—

Balance of 1915,	\$11,382 76
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Advance money (amount on hand November 30),	30,000 00
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Approved schedules of 1916, . \$450,284 10

Less returned,	.	.	.	33	57
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450,250 53

491,633 29

[illegible][illegible]

Payments.

To treasury of Commonwealth, institution receipts,	\$52,496 87
Industries fund,	283 45

Maintenance appropriations: —

Balance November schedule, 1915,	\$23,021 33
Eleven months' schedules, 1916,	450,250 53
November advances,	16,484 01
	<hr/>
	489,755 87

Industries fund, approved schedules,	318 27
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Balance, Nov. 30, 1916: —

In bank,	\$11,670 80
In office,	1,845 19
	<hr/>
	13,515 99

Total,	\$556,370 45
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MAINTENANCE.

Appropriation, current year,	\$488,491 00
Balance from previous year, brought forward,	126 26

Total,	\$488,617 26
Expenses (as analyzed below),	488,450 66

Balance reverting to treasury of Commonwealth,	\$166 60
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Analysis of Expenses.

Salaries, wages: —

Henry P. Frost, M.D., superintendent,	\$4,000 00
General administration,	67,475 59
Medical service,	38,268 93
Ward service (male),	34,380 26
Ward service (female),	57,558 06
Repairs,	9,279 68
Farm and stable,	8,641 44
Grounds,	1,963 93
	<hr/>
	\$221,567 89

Religious instruction: —

Catholic,	\$882 00
Jewish,	270 00
Protestant,	312 00
	<hr/>
	1,464 00

Travel, transportation and office expenses: —

Advertising,	\$6 00
Automobile repairs and supplies,	1,616 23
Postage,	1,330 27
Printing and binding,	1,449 41
Printing annual report,	347 60
Stationery and office supplies,	1,626 46
Telephone and telegraph,	2,232 29
	<hr/>

Amounts carried forward,	\$8,608 26	\$223,031 89
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<i>Amounts brought forward,</i>	\$8,608 26	\$223,031 89
Travel, transportation and office expenses — <i>Con.</i>		
Travel,	886 56	
Sundries,	2 60	
Freight,	62 34	
		9,559 76
Food: —		
Butter,	\$15,983 29	
Butterine,	1,216 22	
Beans,	2,448 30	
Bread, crackers, etc.,	409 96	
Canned soups,	6 33	
Cereals, rice, meal, etc.,	1,972 92	
Cheese,	1,474 78	
Eggs,	10,366 18	
Flour,	13,878 48	
Fish (fresh, cured and canned),	4,021 38	
Fruit (fresh),	2,951 70	
Fruit (dried and preserved),	2,011 37	
Lard and substitutes,	682 33	
Macaroni and spaghetti,	41 00	
Meats,	35,867 69	
Milk (fresh and substitutes),	21,800 37	
Molasses and syrups,	386 90	
Peanut butter, pie filling, etc.,	434 94	
Potatoes,	5,704 44	
Seasonings and condiments,	1,070 00	
Sugar,	7,906 17	
Tea, coffee, cocoa, etc.,	3,474 79	
Vegetables (fresh),	614 64	
Vegetables (canned and dried),	811 06	
Yeast, baking powder, etc.,	761 80	
Sundries,	7 55	
Freight,	89 30	
		136,393 89
Clothing and materials: —		
Boots, shoes and rubbers,	\$1,648 50	
Clothing (outer),	3,192 37	
Clothing (under),	814 52	
Dry goods for clothing,	1,618 66	
Hats and caps,	45 70	
Leather and shoe findings,	1,326 69	
Machinery and materials for manufacturing,	807 91	
Socks and smallwares,	1,979 59	
Freight,	9 93	
		11,443 87
Furnishings and household supplies: —		
Beds, bedding, etc.,	\$9,023 59	
Carpets, rugs, etc.,	483 01	
Crockery, glassware, cutlery, etc.,	1,519 85	
Dry goods and smallwares,	93 79	
Fire hose and extinguishers,	66 80	
Furniture, upholstery, etc.,	1,371 96	
<i>Amounts carried forward,</i>	\$12,559 00	\$380,429 41

Amounts brought forward, \$12,559 00 \$380,429 41

Furnishings and household supplies — *Con.*

Kitchen and household wares,	2,391 51
Laundry supplies and materials,	3,296 23
Lavatory supplies and disinfectants,	1,121 59
Machinery and materials for manufacturing,	854 72
Table linen, paper napkins, towels, etc.,	1,639 85
Freight,	66 11

21,929 01

Medical and general care: —

Attorney's fee,	500 00
Books, periodicals, etc.,	\$651 86
Entertainments, games, etc.,	840 46
Funeral expenses,	118 35
Gratuities,	176 90
Ice and refrigeration,	407 46
Laboratory supplies and apparatus,	979 46
Medicines (supplies and apparatus),	4,218 47
Medical attendance (extra),	1,742 93
Patients boarded out,	1,910 49
Return of runaways,	97 35
School books and supplies,	113 06
Sputum cups, etc.,	34 26
Tobacco, pipes, matches,	480 81
Water,	7,746 50
Freight,	36 30

20,054 66

Heat, light and power: —

Coal,	\$41,711 73
Freight on coal and other expenses,	39 11
Gas,	585 92
Oil,	424 33
Operating supplies for boilers and engines,	147 13
Sundries,	40 00
Freight,	1 20

42,949 42

Farm and stable: —

Blacksmithing and supplies,	\$569 25
Carriages, wagons and repairs,	889 49
Fencing materials,	170 76
Fertilizers,	511 86
Grain, etc.,	2,545 04
Harnesses and repairs,	193 74
Other live stock,	31 50
Spraying materials,	76 07
Stable and barn supplies,	28 53
Tools, implements, machines, etc.,	355 91
Trees, vines, seeds, etc.,	427 25
Veterinary services, supplies, etc.,	424 42
Freight,	20 57

6,244 39

Grounds: —

Road work and materials,	\$157 93
Tools, implements, machines, etc.,	518 22

Amounts carried forward, \$676 15 471,606 89

Amounts brought forward, \$676 15 \$471,606 89

Grounds — *Con.*

Trees, vines, shrubs, seeds, etc.,	192 08	
Spraying materials,	115 25	
Sundries,	1 00	
Freight,	25 76	
		1,010 24

Repairs, ordinary: —

Brick,	\$97 58	
Cement, lime, crushed stone, etc.,	421 99	
Electrical work and supplies,	2,193 30	
Hardware, iron, steel, etc.,	1,672 08	
Lumber, etc. (including finished products),	1,115 90	
Paint, oil, glass, etc.,	2,652 96	
Plumbing and supplies,	1,395 76	
Roofing and materials,	80 00	
Steam fittings and supplies,	1,580 09	
Tents, awnings, etc.,	70 97	
Tools, machines, etc.,	770 04	
Boilers, repairs,	178 43	
Engines, repairs,	111 06	
Freight,	41 37	
		12,381 53

Repairs and renewals: —

Fisher Building,	\$1,553 54	
Laundry extractor,	740 00	
Roofing,	1,158 46	
		3,452 00

Total expenses for maintenance, \$488,450 66

SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1915,	\$1,154 76
Expended during the year (see statement annexed),	847 70
Balance Nov. 30, 1916,	\$307 06

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$13,515 99	
November cash vouchers (paid from advance money), account of maintenance,	16,484 01	
Due from treasury of Commonwealth from available appropriation account November, 1916, schedule,	8,200 13	
		\$38,200 13

Liabilities.

Schedule of November bills,	\$38,200 13
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PER CAPITA.

During the year the average number of inmates has been 1,610.09.

Total cost for maintenance, \$488,450.66.

Equal to a weekly per capita cost of \$5.834.

Receipt from sales, \$6,488.89.

Equal to a weekly per capita of \$0.0776.

All other institution receipts, \$46,007.98.

Equal to a weekly per capita of \$0.5494.

Special Appropriations.

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Expended to Date.	Balance at End of Year.
Butler Building addition,	Acts 1910, chap. 513,	\$39,000 00	—	\$38,737 95	\$262 05
Infirmary,	Acts 1910, chap. 513,	275,000 00	\$847 70	274,954 99	45 01
		\$314,000 00	\$847 70	\$313,692 94	\$307 06

Respectfully submitted,

FRED L. BROWN,

Treasurer.

ALONZO B. COOK,

Auditor.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

STATISTICAL TABLES.

[FORM PRESCRIBED BY STATE BOARD OF INSANITY.]

1. — General Statistics of the Year.

	INSANE.			VOLUNTARY, NOT INSANE.			AGGREGATES.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Patients under care Sept. 30, 1915,									
In hospital,	693	851	1,544	—	—	—	693	851	1,544
In family care,	692	842	1,534	—	—	—	692	842	1,534
Viz.: regularly committed,	1	9	10	—	—	—	1	9	10
voluntary,	680	832	1,512	—	—	—	680	832	1,512
Admitted within the year,	13	19	32	—	—	—	13	19	32
Viz.: by regular commitment,	506	548	1,054	24	27	51	530	575	1,105
voluntary,	284	340	624	—	—	—	284	340	624
by transfer,	137	107	244	24	27	51	161	134	295
from visit,	8	7	15	—	—	—	8	7	15
from escape,	15	22	37	—	—	—	15	22	37
Nominal admissions for discharge,	6	—	6	—	—	—	6	—	6
Viz.: from visit,	56	72	128	—	—	—	56	72	128
from escape,	50	72	122	—	—	—	50	72	122
Whole number of cases within the year,	6	—	6	—	—	—	6	—	6
Dismissed within the year,	1,199	1,399	2,598	24	27	51	1,223	1,426	2,649
Viz.: discharged,	501	507	1,008	24	25	49	525	526	1,057
as recovered,	255	251	506	24	25	49	279	276	555
as capable of self-support,	73	73	146	—	—	—	49	73	122
as improved,	21	12	33	—	—	—	21	12	33
as not improved,	65	76	131	—	—	—	65	76	131
as not insane,	77	48	125	—	—	—	77	48	125
died,	43	52	95	—	—	—	67	77	144
transferred,	133	96	229	24	25	49	133	96	229
on visit Sept. 30, 1916,	12	52	64	—	—	—	12	52	64
In hospital,	16	—	16	—	—	—	16	—	16
Viz.: regularly committed,	85	108	193	—	—	—	85	108	193
voluntary,	698	892	1,590	—	—	—	698	894	1,592
supported as State patients,	696	886	1,582	—	—	—	696	888	1,584
supported as reimbursing patients,	6	6	12	—	—	—	2	6	8
supported as private patients,	687	872	1,559	—	—	—	687	872	1,559
voluntary,	11	20	31	—	—	—	11	22	33
supported as State patients,	644	741	1,385	—	—	—	644	743	1,387
supported as reimbursing patients,	34	83	117	—	—	—	34	83	117
supported as private patients,	20	68	88	—	—	—	20	68	88

Number of different persons within the year,	1,132	1,317	2,449	24	27	51	1,154	1,343	2,497
Number of different persons admitted,	440	468	908	24	27	51	463	494	957
Number of different persons admitted from the community,	411	440	851	24	27	51	434	466	900
Number of different persons dismissed,	441	428	869	24	25	49	464	453	917
Number of different persons dismissed to the community,	429	376	805	24	25	49	452	401	853
Number of different persons recovered,	49	73	122	—	—	—	49	73	122
Number of different persons capable of self-support,	21	12	33	—	—	—	21	12	33
Daily average number of patients under care,	697.45	874.97	1,572.42	.72	.9	1.62	698.17	875.87	1,574.04
In hospital,	695.82	863.64	1,559.46	.72	.9	1.62	696.54	864.54	1,561.08
In family care,	1.63	11.33	12.96	—	—	—	1.63	11.33	12.96
Viz.: State patients,	649.15	734.20	1,383.35	.72	.9	1.62	649.87	735.10	1,384.97
reimbursing patients,	27.68	80.02	107.70	—	—	—	27.68	80.02	107.70
private patients,	20.62	60.75	81.37	—	—	—	20.62	60.75	81.37
Daily average number of voluntary patients,	12.64	18.72	31.36	.72	.9	1.62	13.36	19.62	32.98

Whole number of voluntary admissions — males, 174; females, 143; total, 317.

2. — *Family-care Department.*

	Males.	Females.	Totals.
Remaining Sept. 30, 1915,	1	9	10
Admitted within the year,	1	12	13
Whole number of cases within the year,	2	21	23
Dismissed within the year,	—	15	15
Returned to institutions,	—	10	10
Discharged,	—	2	2
On visit,	—	3	3
Remaining Sept. 30, 1916,	2	6	8
Supported by State,	2	6	8
Private,	—	—	—
Self-supporting,	—	—	—
Number of different persons within the year,	2	21	23
Number of different persons admitted,	1	12	13
Number of different persons discharged,	—	15	15
Daily average number,	1.63	11.33	12.96
State,	1.63	9.93	11.56
Private,	—	.81	.81
Self-supporting,	—	.07	.07
Reimbursing,	—	.52	.52

3. — *Insane received on First and Subsequent Commitments.*

NUMBER OF COMMITMENT.	CASES COMMITTED.		
	Males.	Females.	Totals.
First to this hospital,	367	373	740
Second to this hospital,	47	56	103
Third to this hospital,	5	10	15
Fourth to this hospital,	2	4	6
Fifth to this hospital,	—	1	1
Sixth to this hospital,	—	1	1
Seventh to this hospital,	—	1	1
Eighth to this hospital,	—	1	1
Total cases,	421	447	868
Total persons,	411	440	851
Never before in any hospital for insane,	347	341	688

4. — *Nativity and Parentage of Insane Persons first admitted to Any Hospital.*

PLACE OF NATIVITY.	MALES.			FEMALES.			TOTALS.		
	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.	Patients.	Fathers.	Mothers.
Massachusetts,	161	55	57	137	36	36	298	91	93
Other New England States,	28	31	30	26	24	23	54	55	53
Other States,	31	21	22	25	16	14	56	37	36
Total native,	220	107	109	188	76	73	408	183	182
Other countries: —									
Australia,	1	1	1	—	—	—	1	1	1
Austria,	1	2	1	2	3	3	3	5	4
Azores,	1	1	1	—	—	—	1	1	1
Belgium,	1	1	1	—	—	—	1	1	1
Canada,	17	27	28	25	21	17	42	48	45
England,	10	15	17	6	11	8	16	26	25
East Indies,	1	—	—	—	—	—	1	—	—
Finland,	1	1	1	—	—	—	1	1	1
France,	—	3	1	—	2	1	—	5	2
Germany,	3	5	3	5	7	7	8	12	10
Greece,	2	2	2	—	—	—	2	2	2
Holland,	—	1	—	—	1	1	—	2	1
Hungary,	—	1	—	—	1	1	—	2	1
Ireland,	48	110	112	70	126	136	118	236	248
Italy,	4	8	7	7	9	9	11	17	16
Lithuania,	1	1	1	—	—	—	1	1	1
Newfoundland,	—	—	2	2	2	4	2	2	6
Norway,	1	2	1	1	1	1	2	3	2
Poland,	1	1	1	—	—	—	1	1	1
Portugal,	—	—	—	—	—	1	—	—	1
Prince Edward Island,	2	2	1	5	5	3	7	7	4
Russia,	16	25	23	16	17	17	32	42	40
Scotland,	6	9	6	2	8	7	8	17	13
Sicily,	—	—	—	1	1	1	1	1	1
Sweden,	6	5	6	8	11	10	14	16	16
Switzerland,	1	—	1	—	—	—	1	—	1
Turkey,	1	—	—	—	—	—	1	—	—
West Indies,	—	—	—	1	—	—	1	—	—
Total foreign,	125	223	217	151	226	227	276	449	444
Total native,	220	107	109	188	76	73	408	183	182
Unknown,	2	17	21	2	39	41	4	56	62
Totals,	347	347	347	341	341	341	688	688	688

5. — Residence of Insane Persons admitted from the Community.

	FIRST ADMITTED TO ANY HOSPITAL.			OTHER ADMISSIONS.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Massachusetts: —									
Barnstable County,	1	1	2	-	-	-	1	1	2
Berkshire County,	-	1	1	-	-	-	-	1	1
Bristol County,	-	2	2	1	-	1	1	2	3
Hampden County,	1	-	1	-	-	-	1	-	1
Hampshire County,	1	1	2	-	-	-	1	1	2
Essex County,	10	3	13	-	-	-	10	3	13
Middlesex County,	19	17	36	3	5	9	22	23	45
Norfolk County,	7	5	12	3	2	5	10	7	17
Suffolk County,	308	311	619	56	91	147	364	402	766
Worcester County,	-	-	-	-	-	-	-	-	-
Plymouth County,	-	-	-	-	-	-	-	-	-
Total resident,	347	341	688	63	99	162	410	440	850
New York,	-	-	-	1	-	1	1	-	1
Total nonresident,	-	-	-	1	-	1	1	-	1
Cities and towns of 10,000 or over,	341	332	673	63	97	160	404	429	833
Cities and towns under 10,000, .	6	9	15	1	2	3	7	11	18
Aggregates,	347	341	688	64	99	163	411	440	851

6. — Civil Condition of Insane Persons first admitted to Any Hospital.

	Males.	Females.	Totals.
Unmarried,	138	135	273
Married,	160	138	298
Widowed,	44	63	107
Divorced,	4	5	9
Unknown,	1	-	1
Totals,	347	341	688

7. — *Occupation of Insane Persons first admitted to Any Hospital.*

MALES.

Advertiser,	1	Electricians,	3
Agents,	5	Engineers,	3
Army officer,	1	Errand boys,	3
Artist,	1	Expressmen,	2
Attorneys,	2	Factory hands,	2
Bakers,	3	Farmers,	2
Barbers,	3	Farm hands,	3
Bartenders,	3	Firemen,	4
Blacksmiths,	3	Foremen,	2
Boiler maker,	1	Freight handler,	1
Bookbinders,	2	Gate tender,	1
Bookkeeper,	1	Grocer,	1
Brakeman,	1	Groom,	1
Brass finisher,	1	Inventor,	1
Bricklayers,	2	Iron workers,	2
Brokers,	3	Iron molder,	1
Building mover,	1	Janitors,	3
Butcher,	1	Journalists,	2
Cab drivers,	2	Kitchen worker,	1
Cabinet makers,	2	Laborers,	46
Carpenters,	8	Lather,	1
Carriage maker,	1	Laundryman,	1
Cashier,	1	Leather worker,	1
Caterer,	1	Letter carrier,	1
Chauffeurs,	7	Liquor dealer,	1
Cigar and tobacco dealer,	1	Lodging-house keeper,	1
Cigar maker,	1	Longshoreman,	1
Clerks,	30	Machinists,	9
Coachmen,	2	Masons,	3
Coal dealer,	1	Meat cutter,	1
Coal heavers,	2	Mechanics,	2
Compositor,	1	Merchants,	2
Contractor,	1	Motormen,	2
Cooks,	2	Music teacher,	1
Costumer,	1	Musical instrument maker,	1
Dish washer,	1	Newsdealers,	2
Druggist,	1	None,	27
Egg-candler,	1	Nurse,	1
Elevator operators,	4	Odd jobs,	1

7. — *Occupation of Insane Persons first admitted to Any Hospital —*
Continued.

MALES — *Con.*

Packers,	3	Stableman,	1
Painters,	6	Stable business,	1
Paper hangers,	2	Stationer,	1
Peddlers,	3	Steam fitter,	1
Pharmacist,	1	Stenographers,	2
Photographer,	1	Stewards,	2
Physicians,	4	Strippers,	2
Piano tuner,	1	Students,	6
Plumbers,	2	Surveyors,	2
Plumber's helper,	1	Tailor,	1
Policeman,	1	Teacher,	1
Porter,	1	Teamsters,	11
Post-office clerk,	1	Telegrapher,	1
Printers,	6	Typesetters,	2
Promoter,	1	Undertaker,	1
Restaurant keeper,	1	Waiters,	2
Roofer,	1	Watch maker,	1
Rubber workers,	2	Watchmen,	2
Salesmen,	8	Whitewasher,	1
Sales manager,	1	Wool sorter,	1
Scene shifter,	1	Unknown,	2
Shoemakers,	5		
Shoe cutter,	1	Total,	347

7. — *Occupation of Insane Persons first admitted to Any Hospital —*
Concluded.

FEMALES.

Attendant,	1	Music teachers,	2
Bookkeepers,	2	None,	21
Bookbinders,	2	Nurse maid,	1
Box maker,	1	Nurses,	2
Cashier,	1	Real estate broker,	1
Car cleaner,	1	Saleswomen,	2
Chocolate packer,	1	Seamstresses,	4
Clerks,	4	Secretary,	1
Cooks,	4	Stenographers,	7
Cushion maker,	1	Stitchers,	2
Deaconess,	1	Storekeeper,	1
Detective,	1	Students,	9
Diving girl,	1	Tailoresses,	2
Domestics,	130	Teachers,	2
Dressmakers,	3	Telephone operator,	1
Factory employees,	10	Tobacco stripper,	1
Folders,	2	Waitresses,	7
Housework at home,	95	Weaver,	1
Laundresses,	4	Unknown,	6
Librarian,	1		
Lodging-house keepers,	2	Total,	341

8. — *Ages of Insane at First Attack, Admission and Death.*

	FIRST ADMITTED TO ANY HOSPITAL.					DIED.						
	AT FIRST ATTACK.			WHEN ADMITTED.		AT FIRST ATTACK.			AT DEATH.			
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Congenital,	5	6	11	—	—	—	2	2	4	—	—	—
15 years or less,	1	5	6	1	1	2	1	1	2	—	—	—
From 15 to 20 years,	25	25	50	19	28	47	6	6	12	—	—	—
20 o 25 years,	32	28	60	37	23	60	5	3	8	3	3	6
25 to 30 years,	26	26	52	34	32	66	8	3	11	6	2	8
30 to 35 years,	33	26	59	28	24	52	9	6	15	5	5	10
35 to 40 years,	44	41	85	48	41	89	21	24	45	8	17	43
40 to 50 years,	52	68	120	54	64	118	24	11	35	26	17	45
50 to 60 years,	48	48	96	67	51	118	21	24	45	22	15	37
60 to 70 years,	29	38	67	31	40	71	23	10	33	24	23	47
70 to 80 years,	21	13	34	21	22	43	4	4	8	11	9	20
Over 80 years,	5	10	15	7	14	21						
Totals,	321	334	655	347	340	687	125	96	221	133	96	229
Unknown,	26	7	33	—	1	1	8	—	8	—	—	—
Total of persons,	347	341	688	347	341	688	133	96	229	133	96	229
Mean known ages (in years),	41.8	42.7	42.3	43.8	41.2	42.5	53.0	51.9	52.5	56.4	57.5	56.9

9. — Probable Causes of Mental Disease in Persons first admitted to Any Hospital.

EXCITING CAUSES.	ADMITTED.			PREDISPOSING CAUSES.					
	Males.		Totals.	HEREDITARY TENDENCY.		NEUROTIC TENDENCY.		ALCOHOLISM.	
		Females.		Males.	Females.	Males.	Females.	Males.	Totals.
Acute infectious diseases,	8	3	11	3	1	-	-	-	-
Alcohol,	64	24	88	3	2	-	-	9	9
Brain tumor,	3	1	4	-	-	-	-	1	1
Cardiorenal,	4	3	7	-	1	-	-	1	2
Cerebral hemorrhage,	3	3	6	-	-	-	-	-	-
Childbirth,	-	9	9	-	2	-	-	-	-
Chorea,	-	1	1	-	-	-	-	-	-
Congenital,	3	12	15	-	1	-	-	1	1
Diabetes,	1	-	1	-	-	-	-	-	-
Drug habit,	1	-	1	-	-	-	-	-	-
Epilepsy,	3	5	8	-	-	-	-	1	1
Exhaustion,	2	6	8	-	3	-	-	-	-
Grief,	1	7	8	1	2	-	-	-	-
Insomnia,	-	2	2	-	5	-	-	-	-
Involution period,	-	27	27	-	-	-	-	-	-
Lead poisoning,	1	-	1	-	-	-	-	1	1
Masturbation,	1	1	2	-	-	-	-	-	-
Multiple sclerosis,	1	1	2	-	-	-	-	-	-
Nephritis and arteriosclerosis,	1	-	1	-	-	-	-	-	-
Organic brain disease,	-	2	2	-	-	-	-	-	-
Pellagra,	1	3	4	-	-	-	-	1	1
Pernicious anemia,	1	3	4	-	-	-	-	-	-
Post-operative,	-	7	7	-	2	-	-	-	-
Senility and arteriosclerosis,	44	70	114	3	2	-	-	2	4
Stroke,	1	-	1	-	-	-	-	-	-
Syphilis,	74	19	93	6	4	-	-	1	2
Trauma,	12	3	15	1	2	-	-	6	6
Tuberculosis,	2	2	4	-	-	-	-	1	1
Worry,	15	15	30	4	2	1	-	1	1
Totals,	246	226	472	21	29	1	-	26	34
Unknown,	101	115	216	15	21	1	3	1	1
Totals,	347	341	688	36	50	2	3	27	35

10. — *Probable Duration of Mental Disease before Admission.*

PREVIOUS DURATION.	FIRST ADMITTED TO ANY HOSPITAL.		
	Males.	Females.	Totals.
Congenital,	5	6	11
Less than 1 month,	71	45	116
From 1 to 3 months,	72	68	140
3 to 6 months,	33	44	77
6 to 12 months,	39	39	78
1 to 2 years,	48	38	86
2 to 5 years,	41	39	80
5 to 10 years,	17	21	38
10 to 20 years,	3	10	13
Over 20 years,	—	4	4
Totals,	329	314	643
Unknown,	18	27	45
Totals,	347	341	688
Average known duration (in years), . . .	1.12	1.74	1.43

FORM OF DISEASE.

FORM OF DISEASE.	ADMITTED.						RECOVERED.						CAPABLE OF SELF-SUPPORT.						DISCHARGED.						NOT IMPROVED.						NOT INSANE.						DIED.						AGGREGATES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Males.			Females.			Totals.			Males.			Females.			Totals.			Males.			Females.			Totals.			Males.			Females.			Totals.			Males.			Females.			Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

11. — *Form of Mental Disease in Patients admitted from the Community or discharged, with their Condition on Discharge, or died* — *Con.*

FORM OF DISEASE.	ADMITTED.			DISCHARGED.												DIED.			AGGREGATES.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Males.	Females.	Totals.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.									NOT INSANE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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<i>B. — Other Admissions.</i>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

12. — Discharges of the Insane classified by Admission and Result.

NUMBER OF THE ADMISSION.	RECOVERED.			CAPABLE OF SELF-SUPPORT.			IMPROVED.			NOT IMPROVED.			NOT INSANE.			DIED.			TOTALS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
First,	44	53	97	15	7	22	56	56	112	63	42	105	40	51	91	124	83	207	342	292	634
Second,	4	11	15	5	1	6	9	7	16	12	4	16	3	1	4	6	13	19	39	37	76
Third,	1	5	6	1	2	3	-	1	1	1	1	2	-	-	-	2	-	2	5	9	14
Fourth,	-	2	2	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	4	4
Fifth,	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Sixth,	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1
Seventh,	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	2	2
Eighth,	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	-	1	1	1	2
Total cases,	49	73	122	21	12	33	65	66	131	77	48	125	43	52	95	133	96	229	388	347	735
Total persons,	49	73	122	21	12	33	65	64	129	74	44	118	43	52	95	133	96	229	385	341	726
First admissions to any hospital,	39	50	89	14	5	19	50	52	102	60	40	100	39	51	90	122	80	202	324	278	602

14. — Duration of Mental Disease and its Treatment in Persons who recovered or died.

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.									
	DURATION BEFORE ADMISSION.			HOSPITAL RESIDENCE.			WHOLE DURATION.			WHOLE KNOWN PERIOD OF MENTAL DISEASE.			WHOLE KNOWN PERIOD OF HOSPITAL RESIDENCE.			
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	
<i>A. — Recovered.</i>																
Under 1 month,	15	15	30	6	4	10	5	—	5	—	—	—	—	1	—	1
From 1 to 3 months,	10	10	20	10	14	24	5	6	11	—	1	—	—	—	—	7
3 to 6 months,	4	10	14	6	12	18	9	10	19	3	4	7	3	4	7	11
6 to 12 months,	2	8	10	13	15	28	5	16	21	4	7	11	4	7	7	7
1 to 2 years,	4	4	8	2	5	7	9	15	24	3	6	9	3	—	—	7
2 to 5 years,	2	2	4	2	—	2	2	2	4	2	10	13	3	3	4	7
Over 5 years,	—	1	1	—	—	—	2	1	3	—	—	—	—	—	—	—
Totals,	37	50	87	39	50	89	37	50	87	9	23	32	10	23	33	33
Unknown,	2	—	2	—	—	—	2	—	2	1	—	1	—	—	—	—
Totals,	39	50	89	39	50	89	39	50	89	10	23	33	10	23	33	33
Average of known cases (in months),	5.8	8.0	6.9	5.7	5.4	5.5	11.9	14.3	13.1	17.8	23.6	20.7	12.4	15.1	13.7	13.7

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NINTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE YEAR ENDING NOVEMBER 30, 1917.

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BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
32 DERNE STREET.

1918.

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PUBLICATION OF THIS DOCUMENT
APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

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TRUSTEES

OF THE

BOSTON STATE HOSPITAL.

HENRY LEFAVOUR, <i>Chairman</i> ,	Boston.
HON. MELVIN S. NASH, ¹ <i>Secretary</i> ,	Hanover.
MRS. KATHERINE G. DEVINE,	Boston.
LEHMAN PICKERT, ¹	Brookline.
MRS. HELEN B. HOPKINS,	Boston.
JOHN A. KIGGEN,	Hyde Park.
JOHN F. FENNESSEY, M.D.,	Dorchester.
WILLIAM F. WHITTEMORE,	Boston.

Stated meetings of the trustees are held at the hospital on the second Friday of each month.

VISITING COMMITTEES, 1917-18.

February,	Mr. LEFAVOUR, Dr. FENNESSEY.
March,	Mrs. DEVINE, Mr. KIGGEN.
April,	Mr. PICKERT, Mr. WHITTEMORE.
May,	Mrs. HOPKINS, Mr. LEFAVOUR.
June,	Dr. FENNESSEY, Mrs. DEVINE.
July,	Mr. KIGGEN, Mr. PICKERT.
August,	Mr. WHITTEMORE, Mrs. HOPKINS.
September,	Mr. LEFAVOUR, Dr. FENNESSEY.
October,	Mrs. DEVINE, Mr. KIGGEN.
November,	Mr. PICKERT, Mr. WHITTEMORE.
December,	Mrs. HOPKINS, Mr. LEFAVOUR.
January,	Dr. FENNESSEY, Mrs. DEVINE.

¹ Died.

RESIDENT OFFICERS

OF THE

BOSTON STATE HOSPITAL.

HENRY P. FROST, M.D., ¹	Superintendent.
E. CORSER NOBLE, M.D.,	Acting Superintendent.
WILLIAM M. DOBSON, M.D., ²	Senior Assistant Physician.
MARY E. GILL NOBLE, M.D.,	Senior Assistant Physician.
EDMUND M. PEASE, M.D.,	Senior Assistant Physician.
GENEVA TRYON, M.D., ²	Assistant Physician.
HEMAN L. CHASE, M.D., ²	Assistant Physician.
WILLIAM T. RUMAGE, M.D., ²	Assistant Physician.
DORA W. FAXON, M.D.,	Assistant Physician.
SAMUEL FINLEY GORDON, M.D.,	Assistant Physician.
RODERICK B. DEXTER, M.D.,	Assistant Physician.
FLORENCE H. ABBOT, M.D.,	Assistant Physician.
MARY E. MORSE, M.D., ³	Pathologist.
JANE ROBERTSON, R.N.,	Superintendent of Nurses.
WILLIAM E. ELTON,	Steward.
MILDRED G. TERRELL,	Matron, East Group.
VIOLET O. LAWLEY,	Matron, West Group.
GERTRUDE L. FLETCHER, ²	Social Worker.
MARIE L. DONOHUE,	Social Worker.

NONRESIDENT OFFICERS.

FRED L. BROWN,	.	.	.	.	.	Treasurer and Clerk.
ARIEL A. WELLS,	.	.	.	.	.	Chief Engineer.
LOUIS S. WHITE,	.	.	.	.	.	Farmer.

ATTENDING SURGEON.

IRVING J. WALKER, M.D.

BOARD OF CONSULTING PHYSICIANS.

JOHN L. AMES, M.D.,	<i>Physician.</i>
JOHN BAPTIST BLAKE, M.D.,	<i>Surgeon.</i>
FRED B. LUND, M.D.,	<i>Surgeon.</i>
JOHN JENKS THOMAS, M.D.,	<i>Neurologist.</i>
ROBERT G. LORING, M.D.,	<i>Ophthalmologist.</i>
— — — — —	<i>Otologist.</i>
HARRIS P. MOSHER, M.D.,	<i>Laryngologist.</i>
MALCOLM STORER, M.D.,	<i>Gynecologist.</i>
CHARLES J. WHITE, M.D.,	<i>Dermatologist.</i>

¹ Died.

² Resigned.

³ On leave of absence.

PSYCHOPATHIC DEPARTMENT.

MEDICAL OFFICERS.

- ELMER E. SOUTHARD, M.D., *Director*, May 1, 1912.
HARRY C. SOLOMON, M.D., *Acting Clinical Director*, Sept. 1, 1916–Feb. 1, 1917.
ELISHA H. COHOON, M.D., *Administrator*, Aug. 21, 1916–April 1, 1917.
ARTHUR P. NOYES, M.D., *Acting Administrator*, April 1, 1917.
LAWSON G. LOWREY, M.D., *First Assistant Physician*, Feb. 1, 1917.
ANNA C. WELLINGTON, M.D., *Executive Assistant*, Nov. 1, 1913–May 15, 1917.
CLIFFORD G. ROUNSEFELL, M.D., *Senior Assistant Physician*, Sept. 15, 1916.
WM. A. BRYAN, M.D., *Senior Assistant Physician*, Nov. 5, 1916–March 31, 1917.
LELAND B. ALFORD, M.D., *Senior Assistant Physician*, April 6, 1917–Aug. 19, 1917.
MINTA P. KEMP, M.D., *Senior Assistant Physician*, May 26–Aug. 25, 1917.
JOHN H. TRAVIS, M.D., *Senior Assistant Physician*, Oct. 1, 1917.
JAMES T. ADAMS, M.D., *Assistant Physician*, Aug. 1, 1916–May 19, 1917.
LILLIAN MACPHEE, M.D., *Assistant Physician*, May 15, 1917.
MARION H. REA, M.D., *Assistant Physician*, Nov. 1, 1916–April 30, 1917.
OSCAR J. RAEDER, M.D., *Assistant Physician*, Nov. 1, 1917.
JOHN H. ARNETT, M.D., *Graduate Interne*, Sept. 15, 1916–Dec. 9, 1916.
ELIZABETH I. ADAMSON, M.D., *Graduate Interne*, July 25–Aug. 31, 1917.
LOUIS G. BEALL, M.D., *Graduate Interne*, Jan. 17–Feb. 14, 1917.
DAVID T. BREWSTER, M.D., *Graduate Interne*, April 16–May 16, 1917.
EDGAR O. CROSSMAN, M.D., *Graduate Interne*, Oct. 2, 1916–Dec. 1, 1916.
ALMA E. FOWLER, M.D., *Graduate Interne*, May 25–Sept. 4, 1917.
THOMAS H. RAINES, M.D., *Graduate Interne*, Jan. 2–April 16, 1917.
FRANCIS H. SHOCKLEY, M.D., *Graduate Interne*, Nov. 25, 1916–Jan. 10, 1917.
ELEANOR M. SLATER, M.D., *Graduate Interne*, Sept. 1, 1916–March 30, 1917.
HERBERT E. THOMPSON, M.D., *Graduate Interne*, March 15–April 15, 1917.
NELSON G. TRUEMAN, M.D., *Graduate Interne*, April 1–May 31, 1917.
FRANK V. WILLHITE, M.D., *Graduate Interne*, Nov. 4, 1916–Jan. 8, 1917.
ESTHER S. B. WOODWARD, M.D., *Graduate Interne*, Sept. 20, 1916–March 10, 1917.
ANDREW R. MANKER, M.D., *Graduate Interne*, Oct. 20, 1917.
ISRAEL E. RUDMAN, M.D., *Graduate Interne*, Nov. 1, 1917.
A. WARREN STEARNS, M.D., *Out-patient Physician*, Nov. 15, 1915–Aug. 20, 1917.
ABRAHAM MYERSON, M.D., *Out-patient Physician*, Oct. 1, 1917.
DONALD GREGG, M.D., *Out-patient Physician*, Jan. 1, 1913.
CHARLES E. SANDOZ, M.D., *Out-patient Physician*, April 11, 1916.
ROBERT M. YERKES, Ph.D., *Psychologist*, March 13, 1913–Aug. 31, 1917.
JOSEPHINE N. CURTIS, Ph.D., *Assistant Psychologist*, Sept. 1, 1916.
FRANCIS J. O'BRIEN, *Assistant in Psychology*, Aug. 15, 1916–Sept. 1, 1917.

INTERNES.

- ROBERT W. ANGEVINE, Feb. 29, 1916.
NEWTON D. BROWDER, Aug. 15, 1916.
ROBERT W. BUCK, June 1, 1917.
ANDREW J. CRIGHTON, June 12, 1916–Jan. 1, 1917.
ARTHUR F. G. EDGELOW, Oct. 1, 1915.
MERVIN FREEMAN, Oct. 1, 1915–Oct. 1, 1917.

ADRIAN G. GOULD, Oct. 1, 1915–Feb. 15, 1917.
PAUL N. NEAL, June 1, 1917.
JOHN O'MEARA, July 6, 1916.
BEN D. PAUL, June 1, 1915–April, 1917.
WILLARD C. RAPPLEYE, March 1, 1916–May 29, 1917.
JOHN B. RIEGER, March 1, 1915.
CURTIS E. SMITH, Feb. 15, 1917.
ANNA E. STEFFEN, Oct. 1, 1914.
EDWARD S. WELLES, Oct. 1, 1914–Feb. 19, 1917.
THOMAS F. WHEELDON, Feb. 1, 1917.

INTERNES IN PSYCHOLOGY.

ELIZABETH M. HINCKS, Sept. 20, 1917.
DORIS M. HOLMES, Oct. 1, 1916.
ELIZABETH E. LORD, April 23, 1917–July 1, 1917.
DORIS PERRY, Aug. 29, 1917.
SIDNEY L. PRESSEY, Sept. 25, 1916–Sept. 15, 1917.

SPECIAL WORKERS.

ELIZABETH CHAPMAN, *Clinical Historian*, Aug. 15, 1913.
JOSEPH SHOHAN, M.D., *Roentgenologist*, September, 1916.

MEDICAL RESERVE CORPS OFFICERS.¹

Lieut. C. J. D'ALTON, Aug. 16–Sept. 26, 1917.
Lieut. EDWARD FRENCH, Aug. 28–Oct. 8, 1917.
Lieut. JAMES A. GOULD, Aug. 20–Oct. 19, 1917.
Lieut. M. LEVY, Aug. 17–Sept. 23, 1917.
Lieut. ARTHUR P. POWELSON, Aug. 1–Sept. 11, 1917.
Lieut. R. G. PROVOST, Aug. 20–Sept. 26, 1917.
Lieut. HENRY R. VIETS, Aug. 31–Oct. 18, 1917.
Capt. C. B. CRAIG, Sept. 15–Nov. 22, 1917.
Lieut. CARL B. HUDSON, Oct. 5, 1917–.
Lieut. C. B. PARTINGTON, Oct. 11–.
Lieut. CHARLES C. ROWLEY, Oct. 3–Nov. 25, 1917.
Lieut. WM. T. RUMAGE, Oct. 5–Nov. 26, 1917.
Capt. OTTO G. WIEDMAN, Sept. 10–Nov. 26, 1917.
Lieut. GEORGE B. WILBUR, Oct. 8–.

¹ Detailed by Surgeon-General, U. S. A., for special instruction in psychiatry.

STAFF OF SOCIAL SERVICE, DEC. 1, 1916—NOV. 30, 1917.

Chief of Social Service, Miss MARY C. JARRETT.

Assistant, HELEN M. ANDERSON (out June 15–October 1).

Assistant, MARGARET B. HODGES, April 1, 1917–.

Clinic Manager, RUTH WADMAN.

Syphilis Worker, MAIDA HERMAN SOLOMON.

Employment Worker: —

MARY E. WARREN, October, 1916–March, 1917.

MARJORIE WHITE, March–July, 1917.

HELEN R. SAMPSON, July, 1917–.

Follow-up Worker: —

DOROTHY Q. HALE (out June–October); half time.

LUELLA COLE, May, 1917–.

Special Investigator, MABEL R. WILSON, August, 1917–.

Men's Club Visitor: —

WILFRED P. HEWITT, February–April, 1917.

FRANK J. O'BRIEN, April, 1917–.

Internes: —

FRANCES H. ALDEN, December, 1916–July, 1917.

SARAH P. EVARTS, April–December, 1917.

MARGARET M. LAWRENCE, July, 1917–.

MARJORIE WHITE, July, 1916–March, 1917.

Externes: —

GERTRUDE L. SULLIVAN, September, 1916–April, 1917.

HELEN R. SAMPSON, November, 1916–July, 1917.

SUSAN C. LYMAN, October, 1916–April, 1917; half time.

VERA L. MOYER, March–May, 1917.

MARGERY CUTTING, March–November, 1917.

GERTRUDE A. COOK, March–November, 1917.

MARTHA B. STRONG, June, 1917–.

SARAH F. SCHROEDER, July, 1917–.

Mrs. V. G. BYERS, October, 1917–.

The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to present herewith their ninth annual report.

CHANGES IN THE BOARD.

The Board has lost through death two of its valued members, the Hon. Melvin S. Nash, who died Dec. 29, 1916, and Mr. Lehman Pickert, whose death occurred Nov. 8, 1917.

Mr. Nash, whose service began in October, 1911, had for the three preceding years been a Senate member of the public charitable institutions committee. He thus brought to our counsels a valuable experience in matters of public policy and methods of administration, and his keen business insight and broad views were of especial assistance to the Board.

Mr. Pickert, whose service began in January, 1911, was a native of Bavaria, coming to this country at the age of sixteen, and during his long life here he had not only developed an important and successful business, but he had established a reputation in his adopted city as a man of most generous qualities. He was assiduous in his efforts to promote the best causes and to make his influence effective in maintaining high ideals of citizenship. He gave himself generously and unremittingly to aiding others, and his deep and abiding interest in the welfare of the hospital was a large service to the Commonwealth.

The place left vacant by the death of Senator Nash was filled in February by the appointment of Mr. William F. Whittemore, a former member of the State Board of Insanity.

DEATH OF THE SUPERINTENDENT.

In the death of Dr. Henry P. Frost, which occurred at the Massachusetts General Hospital on May 23, after a prolonged illness, our hospital sustained a most serious loss. Dr. Frost was appointed superintendent in 1910, having previously been the assistant superintendent of the Buffalo State Hospital in New York. In his seven years of service Dr. Frost had served the hospital most generously, and to his faithful efforts is due the rapid progress that has been made in the development and organization of the institution. The following minute was adopted by the trustees at their meeting in June:—

The trustees of the Boston State Hospital desire to place on record their very high appreciation of the service of the late Dr. Henry P. Frost as superintendent of this hospital since 1910. Coming at a time when the institution was being enlarged and reorganized and meeting problems of unusual complexity and difficulty, his administration has been throughout this period wise and strong, and the efficient condition of the hospital to-day is due to his able efforts. He gave without stint of his time and thought and strength, and he concentrated in these years the usual labor of a much longer period. The gratitude of the Commonwealth is due him for what has been accomplished and for the fidelity and the loyalty of his service.

The trustees will cherish the memory of his gentle and lovable personality, his sterling character and his unswerving devotion to duty. To his family they desire to extend their profound sympathy.

PERSONS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the year there were 1,514 patients in the main hospital, 95 in the psychopathic department and 6 boarded with private families, a total of 1,615 persons under the care of this Board. At the close of the year the total number was 1,554, and of these, 1,467 were in the main hospital, 79 in the psychopathic department and 8 under private care. As the patients remain at the psychopathic department only for a limited period, the service of that department is best measured by the total number of individuals admitted, which for the year was 2,090. In addition to the patients cared for in the house, 1,568 persons came to the out-patient department for advice and treatment. The rated capacity of the main hospital is now estimated at 1,640.

CONSTRUCTION AND IMPROVEMENTS.

The last General Court appropriated \$89,832 for the following additions and improvements: —

For the construction and furnishing of a nurses' home, west group, to accommodate 84 nurses,	\$70,000
For constructing interior fire escapes,	2,832
For purchasing one boiler,	7,000
For alterations in the north wing of the Fisher building, . . .	10,000

Gratifying progress has been made in the construction of the nurses' home, and the other improvements have been nearly completed.

IMPROVEMENTS RECOMMENDED.

The trustees have recommended to the Commission on Mental Diseases, as the immediate needs of the institution, the following: —

- A house for the superintendent.
- A nurses' home for the east group.
- An infirmary for 300 male patients.

These recommendations have all been approved by the Commission. The need of a suitable residence for the superintendent is very urgent. The house hitherto occupied for that purpose is a cottage that was in existence when the farm was purchased by the city of Boston in 1892, and is probably over a century old. It is utterly inadequate and unsuitable for a superintendent's needs. It might well be used for occupancy by the staff, for whom additional accommodations must be secured.

The provision for the housing of nurses in the east group is unsatisfactory, and renders more difficult the task of securing proper persons for this important branch of the administration. When the new building is finished in the west group the contrast in the accommodations in the two groups will be an added disadvantage. Moreover, the construction of a building for the nurses would release space which may be used for housing about 100 patients, and would therefore be an unusually economical method of providing room for patients.

Several times during each year we are obliged to ask for the transfer to other institutions of a certain number of patients in order to make room for the admission of new patients. Even by this means we must limit the use of the hospital to those persons who have had at least ten years of residence in Boston. Such transfers and such limitation are a distinct hardship to the friends of patients who are not permitted to reside in this institution. It means very much less frequent visits because of the time and expense involved in traveling to more distant hospitals. There is a regular increase in the number of beds that must be provided each year in the State, and the need of this additional accommodation is greatest at this center of population. If such added accommodations are to be made at this hospital the greatest need is for another infirmary building to contain at least 300 beds, and we have therefore included this in our recommendations.

ESTIMATES FOR MAINTENANCE.

The estimated cost of maintaining the hospital during the ensuing year, based on an expected population of 1,749, is as follows: —

	Main Hospital.	Psychopathic Department.	Total.
Salaries and wages,	215,235	82,821	298,056
Religious instruction,	1,409	100	1,509
Travel, transportation and office expenses, .	12,193	5,442	17,635
Food,	194,341	35,447	229,788
Clothing and materials,	21,078	640	21,718
Furnishings,	29,813	4,753	34,566
Medical and general care,	15,497	8,283	23,780
Heat, light and power,	86,795	16,892	103,687
Farm and stable,	11,476	—	11,476
Grounds,	700	—	700
Repairs, ordinary,	14,952	2,352	17,304
Repairs and renewals,	1,800	850	2,650
Maintenance of industries,	260	—	260
Totals,	605,549	157,580	763,129

SOCIAL SERVICE.

The need and value of an extended social service in a metropolitan hospital has not yet been sufficiently recognized. The demand is acute in connection with the observation and out-patient branches of the psychopathic department, in which a knowledge of the home conditions and suitable oversight and advice may facilitate the treatment and often obviate the commitment of the patient. It is likewise of great value in connection with the main hospital, from which patients may more readily be returned to their families if there is a means of observing them and of rendering helpful assistance in their home care. The hospital cannot render a greater service than to help those threatened with or suffering from mental disease to live outside of the institution, and for this purpose we need to have at our disposal a larger number of persons whose duties carry them into the homes of patients. This is especially true in dealing with cases occurring in a large city.

ADMINISTRATION.

When Dr. Frost became incapacitated by illness in March, the care of the institution devolved upon the first assistant physician, Dr. E. Corser Noble, and upon the death of Dr. Frost Dr. Noble was appointed acting superintendent. The trustees are under very great obligation to Dr. Noble for his readiness to assume these laborious duties, and they appreciate gratefully his intelligent and thorough administration of the institution.

The trustees have appointed as superintendent Dr. James V. May, now superintendent of the Grafton State Hospital. Dr. May will begin his duties on December 1.

Dr. Elisha H. Cohoon resigned his position as administrator of the psychopathic department April 1, and Dr. Arthur P. Noyes, at that time senior assistant physician in the same department, was designated acting administrator.

CONCLUSION.

The trustees desire to renew their thanks to all the officers of the hospital for their efficient discharge of duties that for many reasons have become more arduous, and for their cheerful assumption of additional tasks made necessary by many vacancies in the service. The administrative and financial details for the year are set forth in the accompanying reports.

HENRY LEFAVOUR.
KATHERINE G. DEVINE.
HELEN B. HOPKINS.
JOHN A. KIGGEN.
JOHN F. FENNESSEY.
WILLIAM F. WHITTEMORE.

Nov. 30, 1917.

SUPERINTENDENT'S REPORT.

To the Trustees of the Boston State Hospital.

I have the honor to present herewith the ninth annual report of the hospital for the year ending Nov. 30, 1917, together with the statistical tables prescribed by the Commission on Mental Diseases, which cover the year ending September 30.

On Oct. 1, 1916, there were 1,831 patients under care, namely, in the main hospital, 1,515; in family care, 8; on visit, 177; in the psychopathic department, 99, including 30 cases held "for temporary care and observation." There were also 32 patients on visit from the psychopathic department.

Including the "temporary care" service there were 2,282 admissions, 2,041 discharges and 277 deaths, leaving 1,801 at the close of the year, distributed as follows: main hospital, committed, 1,442, voluntary, 23, total, 1,465; in family care, 11; on visit, 198; psychopathic department, committed, 30, voluntary, 15, temporary care, 50, total, 95. On visit from psychopathic department, 32.

The daily average number of patients was 1,610.52.

There were 408 voluntary admissions, including 13 classed as not insane.

There were 1,696 patients admitted for temporary care and observation. Of these, 362 were subsequently committed to this hospital and 83 others remained as voluntary patients after expiration of the observation period.

The cases never before committed to any hospital for the insane numbered 1,858. The following data refer only to this group of first admissions: —

Eight hundred and eighteen, or 44 per cent., were foreign born, and 1,376, or 74 per cent., were of foreign parentage on one or both sides.

The average age on admissions was 39.3 years. Twelve per cent. were sixty years of age or over, and 27 patients were over eighty years old.

The forms of mental disease which figure most prominently in the admissions are: general paralysis, 187 cases, or 10 per cent., 25 of these being women; dementia præcox, 500 cases, or 26.9 per cent.; manic-depressive psychosis, 261 cases, or 14 per cent.; cerebral arteriosclerosis, 115 cases, or 6 per cent.; alcoholic psychosis, 239 cases, or 12.8 per cent.; senile psychosis, 109, or 5.8 per cent.

The discharges, exclusive of transfers, temporary care and "voluntary not insane," numbered 869. Of these, 87 were recovered and 230 improved, including 18 classed as capable of self-support.

There were 252 deaths exclusive of the temporary-care service in which 25 deaths occurred. Forty-seven died of general paralysis; 75 of other forms of brain and cord disease; 31 of heart disease; 15 of tuberculosis; 5 of enteritis. There were no deaths this year from pellagra.

The above summary of the statistics is based upon the combined service of the main hospital and the psychopathic department. For convenience of reference the following table shows the movement of patients in the main hospital separately:—

	Males.	Females.	Totals.
Patients remaining Sept. 30, 1916,	671	854	1,525
Admitted within the year,	463	549	1,012
Committed,	88	150	238
Voluntary,	11	15	26
Transferred from psychopathic department,	153	170	323
Transferred from other hospitals,	4	5	9
From family care,	4	1	5
From escape,	18	2	20
From visit,	110	90	200
Nominally admitted for discharge,	75	116	191
Dismissed within the year,	461	611	1,072
Discharged,	87	125	212
Recovered,	30	49	79
Capable of self-support,	13	5	18
Improved,	38	62	100
Not improved,	5	8	13
Not insane,	1	1	2
Died,	99	121	220
Transferred,	59	133	192
Family care,	2	7	9
Escape,	24	7	31
Visit,	190	218	408
Patients remaining Sept. 30, 1917,	673	792	1,465
Family care, Sept. 30, 1917,	—	11	11

GENERAL STATEMENT.

This report, other than the statistics, deals with the main hospital only.

The new Custodial Building for 150 women was completed and opened October 16. The disturbed women from the Cowles Building were transferred to this new building, and the disturbed men formerly in the north wing of the Fisher Building were transferred to the Cowles Building. The alterations were immediately started on the Fisher north wing. The ground was broken for the new nurses' home at the west group on September 13.

There is still a great overcrowding in the infirmary. This hospital has a much larger percentage of aged and feeble than those farther from the city. This can only be accounted for by the fact that on account of the limited capacity here a large number of able-bodied patients residing in Boston are committed to hospitals at a distance, while those unable to take the longer trips are committed directly here; also, for many years a large number of patients have been transferred from this institution to the outlying hospitals. These transfers have included the able-bodied always, while the more feeble have remained.

In addition to more room for infirmary patients there is great need for a nurses' home at the east group. New central kitchens are badly needed at each group. There are now twenty-six different dining rooms for patients. This means a great expense in maintenance as well as an enormous waste. Therefore, in connection with the kitchens above mentioned, there should be a congregate dining room for each group. This would also mean a decided increase of capacity, as the present dining rooms could be used as dormitories for patients.

The most serious difficulty the administration has had to face this year was the great shortage of nurses and attendants, but in spite of this, with the increased scale of wages we were able to retain the services of many of the older and better trained, and to them we owe the fact that we had no accidents resulting fatally.

MEDICAL SERVICE.

Our saddest duty is to record the death of our superintendent, Dr. Henry P. Frost. He was taken ill on March 10 and died on May 23, after nearly six weeks of great suffering. His administration was marked by his constant concern for the welfare of the patients and untiring efforts in their behalf, which resulted in great progress in all departments.

Dr. Geneva Tryon resigned April 14 to become pathologist at the Pontiac State Hospital, Pontiac, Mich.

Dr. William M. Dobson resigned on June 18, having joined the Medical Officers Reserve Corps.

Dr. Heman L. Chase's appointment for one year expired on June 30, when he accepted a position as resident physician at the Herbert Hall Hospital in Worcester.

Dr. William T. Ramage resigned on October 19 to join the Medical Officers Reserve Corps.

Dr. Mary E. Morse was granted an indefinite leave of absence beginning September 16.

Dr. Eudora W. Faxon was appointed assistant physician on January 1, Dr. Samuel F. Gordon on May 15, Dr. Roderick B. Dexter on May 23, and Dr. Florence H. Abbot on July 1.

Dr. Walter J. Whelan has continued as dentist, and is at the hospital two mornings each week. His report is as follows:—

Report of Dental Work for the Year 1917.

Operative:—

Treatments:—

Of the teeth,	. . . . .	152
Prophylactic,	. . . . .	376

Fillings:—

Amalgam,	. . . . .	59
Cement,	. . . . .	66
Gutta-percha,	. . . . .	68
Silicate,	. . . . .	1
Gold inlays,	. . . . .	3
Fillings removed,	. . . . .	2
Extractions,	. . . . .	363

Anæsthesia (including injections of novocaine, cocaine and kalocaine):—

General,	. . . . .	15
Local,	. . . . .	128
Alveolar abscess,	. . . . .	21

Operative — *Con.*

Ludwig's angina,	1
Necrosis of jaw,	1
Alveolus, sinus of,	2
Examinations, miscellaneous,	61

Prosthetic dentistry: —

Plates,	8
Crowns,	2
Bridges,	1
Plates repaired,	6
Bridges and crowns removed,	3
Bridges and crowns replaced and repaired,	13

PATHOLOGICAL LABORATORY.

On account of the illness of Dr. Morse we are unable to give a report of the research work done in the laboratory. The following is a list of the routine work done during the year: —

Autopsies,	59
Urinalyses,	325
Cerebrospinal fluid examinations,	116
Blood counts,	190
Agglutination reactions for dysentery,	48
Bacteriological examinations,	182
Gastric analyses,	3
Surgical specimens,	5
Microscopical examinations,	12
Sputums,	6

Autopsy for Harvard Commission on Infantile Paralysis,	1
Medicolegal autopsies for the Commission on Mental Diseases,	9

TRAINING SCHOOL FOR NURSES.

The graduating exercises for the Class of 1917 were held on the evening of October 22. This date was chosen as it marked the completion of sixteen years of faithful and efficient service of Miss Robertson, the superintendent of nurses. The occasion was made a specially patriotic one, the hall being decorated with large flags of the Allies, kindly loaned by the William Filene's Sons Company and Jordan Marsh Company. The program was particularly interesting. Mrs. Donovan was valedictorian, Miss Nee was class prophet, and Miss Geary read the class poem. There was chorus singing by the class,

and Miss Emma J. Pearce of the Class of 1916 rendered two solos with encores. Miss Mary Beard, director of the District Nursing Association and president of the National Organization of Public Health Nursing, addressed the graduating class.

SOCIAL SERVICE AND FAMILY CARE.

Miss Gertrude L. Fletcher, social worker, who was also a graduate of the Children's Hospital, resigned on May 7 to take up nursing with the Peter Bent Brigham Hospital unit, and went almost immediately to France. The staff felt lost without Miss Fletcher's assistance. Her work was always of the highest character, and her cheerful co-operation with the staff was greatly appreciated. We feel that we are to be particularly congratulated in the appointment of Miss Marie L. Donohoe in Miss Fletcher's place. The work of the department has increased tremendously, and there is great need for at least one more social worker. The period of trial visit for patients has been extended from six months to one year, which means a longer time of supervision and therefore a larger number to be visited. The detailed report of the social worker will be found elsewhere.

RECREATION AND EMPLOYMENT OF PATIENTS.

In addition to the regular dances there have been moving pictures in the chapel at each group, and in the infirmary wards where patients are unable to walk to the chapel. There were also concerts and other musical entertainments, so that we had something in this line for the patients every week. The hospital is greatly in need of more victrolas, more pianos and a good organ in each chapel.

In the early part of the year we started to manufacture shoes, but on account of the high cost of material this has been discontinued. However, a large amount of shoe repairing has been done. Along other lines the industries have progressed, the usual amount of work having been done on the wards and in the different industrial rooms, and during the summer a much larger number of patients than usual were employed out of doors. This was on account of the more extensive gardening.

REPAIRS AND IMPROVEMENTS.

In addition to many minor repairs there were the following worthy of note: The Butler Building was entirely renovated by the carpenters and painters. New windows were put in the cooking schoolroom; a new bathroom in the administration building at the east group; new tin ceiling in the engine room; office at the east group for the engineer and farmer; new porch leading to the B building and new piazza floor under steps, as well as a floor leading to the east group chapel. The barn at the east group and the small barn near the farmhouse were renovated, new stalls put in, etc., after the horse barn at the west group was burned. New food elevators were put in the east and west group kitchens. The roof of the greenhouse and corridor leading to kitchen was repaired. Two new fire exits from the west group chapel and one from the third floor of the Fisher Building were made. Four new clothes closets were put in second floor Fisher, and entire floor, including the chapel, was renovated and painted. A new storm porch was put on the attendants' home; fireproof partition in men's industrial room to make hair-picking room; fireproof closet for clothes in the infirmary; new steps and bulkhead at the farmhouse; protecting guards made and installed for all radiators in the infirmary. In addition to finishing all furniture and small repairs after the carpenters, the painters did the cooking school, east group industrial room, east and west group kitchens, nurses' classroom, corridors in the administration building, first floor in E building, doctors' kitchen, B basement, west group center, including staff quarters, chapel, nurses' dining room and corridors, and corridors from the north to the south wing. The outside of the infirmary was finished; doctors' quarters in infirmary painted; three rooms in the superintendent's cottage painted and papered. The painters also did all the painting in the new Custodial Building, and carpenters, painters and plumbers have spent the last six weeks of the year renovating the Lane Building. The wall on Walk Hill Street was extended and new posts built at the entrance, making 5,715 cubic feet in all. A new retaining wall was also built between the boiler house and the service building. A new granolithic floor was put in the scullery at east group. Two new catch

basins were installed at the east group and three catch basins at the west group.

FARM AND GROUNDS.

The season has been unusually profitable in the production of vegetables. More land than usual was tilled and many more patients employed on the farm. The hospital will have enough vegetables grown on hospital land to last until early spring. The potato crop was considerably over 4,000 bushels. About 50 tons of cabbages and more than that amount of squash were raised, in addition to proportionate quantities of other vegetables. A little over 100 bushels of rye was raised, which is now being ground into flour. The large field of buckwheat was ruined by the heavy rains. The profit on the hogs was unusually large this year, the yield being somewhat over \$10,000. There was very little garbage from the institution, but a large field of alfalfa cut green and fed the pigs offset this. On July 20 the stable at the west group burned and four horses perished in the fire. Two have been bought to fill their places.

MAINTENANCE.

The amount expended for maintenance was \$578,793.86, which, divided by the daily average number of patients, 1,611.36, makes the weekly per capita cost \$6.91. Receipts for board of private patients were \$24,848.21; from reimbursing patients, \$22,930.72; from sales and other sources, \$3,919.78, making the total income \$51,698.71.

Deducting receipts from gross expenses, the net cost of maintenance was \$527,095.15, which, divided by the above average number of patients, gives a net weekly per capita cost of \$6.29.

The above statement includes the psychopathic department. For the main hospital alone the amount expended for maintenance was \$454,078.08, which, divided by the daily average number of patients, 1,519.61, makes the gross weekly per capita cost \$5.75.

The expense of maintenance for the coming year is estimated at \$605,549 for the main hospital and \$157,580 for the psychopathic department, or \$763,129 altogether.

The total value of farm, garden and orchard products for the year was \$34,415.47.

SPECIAL APPROPRIATIONS.

The Legislature granted special appropriations as follows, to be expended under the direction of the Commission on Mental Diseases: —

Home for 84 nurses at west group,	\$70,000
Alterations in Fisher Building,	10,000
Interior fire escapes,	2,832
One boiler,	7,000
<hr/>	
Total,	\$89,832

The contract for the nurses' home was awarded by the Commission, and the work was begun in September. The new boiler is now being installed. The alterations in the Fisher Building are being made chiefly by the hospital force. The contract for the terrazzo and iron work in the water sections was let by the Commission.

RELIGIOUS SERVICES — ACKNOWLEDGMENTS.

Catholic and Protestant services were conducted each Sunday during the year and Jewish services once each week.

Grateful acknowledgment is made for the following donations and entertainments: —

- Dr. Henry Lefavour, magazines and illustrated papers.
- Boston Public Library, magazines and periodicals.
- Mrs. Mary Kanrich, 2 dozen pairs of socks for Christmas tree.
- Mr. Franklin P. Shumway, magazines.
- Church Periodical Club of Milton, magazines.
- Postmen's Glee Club, concert.
- Mrs. Woolsey Hopkins, books, magazines, clothing, etc.
- Mr. K. R. Briggs, magazines and periodicals.
- Dorchester Woman's Club, entertainment.
- Miss Reynolds, Marlborough Street, magazines.
- Dorchester Baptist Church, magazines.
- Miss Emma Porter, magazines, papers and money for Christmas.
- Loan of flags and bunting from William Filene's Sons Company and from Jordan Marsh Company for decoration for nurses' graduation.
- Miss Charlotte Sterne, piano for infirmary.

I feel a deep sense of obligation to the staff, heads of departments and all employees for their faithfulness and support, which have made my duties less difficult. I am especially grateful for your patient consideration and for your support and counsel.

Respectfully submitted,

E. CORSER NOBLE,

Acting Superintendent.

Nov. 30, 1917.

REPORT

OF THE

DIRECTOR OF THE PSYCHOPATHIC DEPARTMENT

OF THE

BOSTON STATE HOSPITAL.

To the Trustees of the Boston State Hospital.

I beg to submit herewith my sixth annual report, and the fifth to cover a year of work as director of the psychopathic department of the Boston State Hospital.

As in previous reports, I shall take up special features under separate sections: I., statistical features; II., problems of hospital management; III., medical and scientific problems of the year; IV., social problems, especially in the out-patient department; V., general and medical educational activities (conferences, medical clinics, social clinics); VI., lectures and publications; VII., alumni; VIII., acknowledgments.

The hospital was established, under the provisions of chapter 470 of the Acts of 1909, as a hospital for the first care and observation of mental patients, and the treatment of acute and curable mental disease. In compliance with said act the trustees of the Boston State Hospital erected, furnished and equipped buildings to accommodate 100 patients; the hospital at present operates 110 beds, so that the population may remain approximately 100 and still allow for emergencies.

The enabling act called for the establishment, in addition to the requirements, of (a) an out-patient department, (b) treatment rooms and (c) laboratories for scientific research as to the nature, causes and results of insanity. A portion of the general appropriation of the Commission on Mental Diseases, namely, \$5,000, is devoted to investigation of the nature, causes, treatment and results of insanity, and the publication

of such investigations. This sum is expended largely in connection with the Psychopathic Hospital, which serves as a research institute of the Massachusetts and associated State institutions. This sum should be greatly increased in future years; a good portion of it has been used in the development of work on treatment of brain syphilis. Another portion of it has been devoted to fundamental studies in the anatomical and chemical nature of mental disease and defect, and especially in recent years to work on feeble-mindedness.

The salary of the director as well as that of assistant pathologists, Dr. Myrtelle M. Canavan, Dr. H. C. Solomon and Dr. D. A. Thom, working on the syphilis investigation, has been paid by the Commission. Chapter 115 of the General Acts of 1917 provides for a further extension of psychopathic hospital service in the State, and for the appointment and payment of other officers engaged in psychopathic hospital service by the Commission.

The internal economy of the institution has continued to the satisfaction of all under an arrangement by which there is an administrator. The first administrator, Dr. E. H. Cohoon, left, to the regret of all our officers, on April 1, to become superintendent of the Medfield State Hospital. His place was filled from the ranks of the Psychopathic Hospital workers by Dr. Arthur P. Noyes, acting administrator.

One main advance of the year has been the consolidation of the executive service upon a salary basis, which promises, even in these difficult times, to keep a certain continuity of service. The chief problems confronting the hospital in future are those of maintaining an equally high standard continuous medical service, and of developing a high standard continuous outpatient service. The national reputation of the hospital is such that a continuous stream of applications for subordinate positions in the medical service for limited periods is assured, but so great is the demand for these men in other institutions of this State and elsewhere that, on the present salary level, no continuity of medical policy can be hoped for. That such has been maintained so far is due to the extraordinary zeal of certain workers. Were it not for the fact that officers from the Commission on Mental Diseases, notably Dr. Solomon and Dr.

Thom, have been available to leap into the breach caused by vacation and illness of regular officers, the hospital would hardly have made so good a medical record.

Recently, also, the routine of the hospital has been helped by the delegation from the Surgeon-General of a number of excellent surgeons who found their best means of improvement in psychiatry to be participation in our routine work.

As noted in previous reports, the most striking feature of the Psychopathic Hospital work is its community relations. Section IV. will give more in detail a picture of these relations. Hardly any branch of public or private work in charities and corrections but has threads running to the Psychopathic Hospital.

Our work in securing a lower mortality in delirium tremens and other alcoholic conditions is now a commonplace with our own officers, but the spread of these now perfectly established psychiatric standards of treatment of alcoholics, with prolonged baths and without much drugging, is still not so rapid in the medical world as it should be.

Special attention is called to the reports on syphilis work. Monograph No. 2 of the Psychopathic Hospital Series has been published in Leonard's Case History Series, under the title "Neurosyphilis: Modern Systematic Diagnosis and Treatment, presented in One Hundred and Thirty-seven Case Histories," by E. E. Southard and H. C. Solomon, a book designed to spread among general practitioners a knowledge of these conditions. The gigantic spread of syphilitic infection incidentally in the war has become a matter of general medical comment, and no doubt an increase in the amount of syphilis of the nervous system can be confidently awaited. Possibly this increase is a decade away, in accord with the German experience following the war of 1870, but intensive work in early diagnosis and special treatment is wanted at the present time.

Under the editorship of Dr. Kline, Dr. Fernald and Dr. Southard the bulletin of the Commission on Mental Diseases is to be issued, and early numbers of it are at the present writing in type. In this bulletin the Psychopathic Hospital is much interested because the bulk of scientific communications in the bulletin is naturally derived from the Psychopathic Hospital's research function.

With respect to the war and its effect on the hospital, aside from difficulties in manning the medical and nursing services, the hospital will doubtless become an important diagnostic and therapeutic agent, since English and French experience, to say nothing of the other belligerents, has shown that practically all the institutions capable of elaborate diagnostic and therapeutic work have been diverted more or less to war work. For example, the new Maudsley Mental Hospital, with Dr. F. W. Mott as director, and built upon lines somewhat resembling those of our own hospital, has been devoted to this work, and reports from the Salpêtrière and La Pitié in Paris, especially the work of Babinski in La Pitié, indicate how well-equipped institutions of the interior have been used in England and France to help in this work. Under exactly what conditions the Psychopathic Hospital may be used is a matter for consideration.

In addition to the list of officers that precedes this report, a special list of men deputed by the Surgeon-General to take courses in training is given.

I. STATISTICS.

The daily average population during the medical year 1917 was 91. The number of patients in the hospital Oct. 1, 1917, was 95. On Sept. 30, 1916, the number was 89.

The total admissions numbered 2,001, making a daily average intake of a little over 5 cases. Of these 2,001 cases, 69 were second or third admissions during the year, so that the total number of different persons admitted was 1,932.

These 2,001 cases were distributed among different forms of commitment, as follows:—

Temporary care (chapter 174, General Acts of 1915),	1,298
Boston police (chapter 307, Acts of 1910),	355
Voluntary,	292
Observation (section 43, chapter 504, Acts of 1909),	26
Pending examination and hearing (section 34, chapter 504, Acts of 1909),	13
Emergency (section 42, chapter 504, Acts of 1909),	6
Commitment Superior Court (section 103, chapter 504, Acts of 1909),	3
Commitment Superior Court (chapter 46, General Acts of 1917),	6

Of these admissions, 845 became regular court commitments later (393 to the Boston State Hospital).

The native born (1,136) were found to exceed in numbers the foreign born (814); the birthplace of 51 was unknown.

The average age on admission was 36.19.

Of the discharges, 659 were discharged not recovered, 507 not insane, 41 recovered, 57 dead.

I shall not go fully into the matter of clinical diagnosis in the department's cases, reserving this for special studies and a determination of the error in diagnosis in the different groups. To correspond, however, with former tables I present a table embodying the diagnosis in a group which we term for convenience the temporary-care group, which included cases admitted under chapter 174, General Acts of 1915; chapter 307, Acts of 1910; and sections 34, 42 and 43, chapter 504, Acts of 1909.

Temporary-care Statistics for the Year.

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1916,	12	18	30
Admissions from Oct. 1, 1916, to Sept. 30, 1917,	830	868	1,698
Viz.: chapter 504, Acts of 1909, section 34,	8	5	13
chapter 504, Acts of 1909, section 43,	15	11	26
chapter 504, Acts of 1909, section 42,	—	6	6
chapter 307, Acts of 1910,	224	131	355
chapter 174, General Acts of 1915,	583	715	1,298
Whole number of cases within the year,	842	886	1,728
Discharged from Oct. 1, 1916, to Sept. 30, 1917,	819	859	1,678
Viz.: recovered,	26	6	32
improved,	78	37	115
unimproved,	143	133	276
died,	17	8	25
not insane,	147	221	368
escaped,	1	—	1
voluntary to Boston State Hospital,	36	50	86
committed to Boston State Hospital,	158	210	368
committed to Danvers State Hospital,	18	16	34
committed to Worcester State Hospital,	77	60	137
committed to Westborough State Hospital,	25	56	81

Temporary-care Statistics for the Year — Concluded.

	Males.	Females.	Totals.
Discharged from Oct. 1, 1916, to Sept. 30, 1917—<i>Con.</i>			
Viz.: committed to Taunton State Hospital, . . .	31	24	55
committed to Monson State Hospital, . . .	2	1	3
committed to Medfield State Hospital, . . .	14	8	22
committed to McLean Hospital, . . .	6	3	9
committed to Norfolk State Hospital, . . .	1	—	1
committed to Grafton State Hospital, . . .	18	9	27
committed to Foxborough State Hospital, . . .	5	8	13
committed to Herbert Hall Sanitarium, . . .	—	1	1
committed to Dr. Mellus' Sanitarium, . . .	1	—	1
committed to Dr. Ordway's Sanitarium, . . .	—	1	1
voluntary to Grafton State Hospital, . . .	1	—	1
voluntary to Westborough State Hospital, . . .	—	1	1
voluntary to Monson State Hospital, . . .	1	—	1
voluntary to Dr. Ring's Sanitarium, . . .	1	—	1
returned to Medfield State Hospital, . . .	2	2	4
returned to Monson State Hospital, . . .	3	1	4
returned to Worcester State Hospital, . . .	3	1	4
returned to Westborough State Hospital, . . .	1	—	1
returned to Northampton State Hospital, . . .	—	1	1
returned to Grafton State Hospital, . . .	2	—	2
returned to Main Hospital, . . .	1	1	2
Patients remaining Sept. 30, 1917, . . .	23	27	50
Daily average of temporary-care cases, . . .	20.01	21.83	41.84

Of the discharges, 4 males and 13 females were discharged to the immigration department.

Provisional Diagnosis in Temporary-care Cases.

	Males.	Females.	Totals.
Alcoholic psychoses,	29	8	37
Delirium tremens,	19	6	25
Korsakow's psychoses,	10	9	19
Alcoholic hallucinosis,	41	12	53
Alcoholism,	46	13	59
Morphinism and other drug psychoses,	—	2	2
Senile psychoses,	24	29	53
Presenile psychoses,	—	4	4
Dementia præcox,	203	248	451
Paranoia,	2	1	3
Paraphrenia,	2	1	3
Manic-depressive insanity,	57	115	172
General paresis,	78	17	95
Neurosypilis,	29	19	48
Epileptic psychoses,	17	13	30
Arteriosclerotic brain disease,	43	25	68
Chorea,	2	3	5
Symptomatic psychoses,	6	8	14
Unclassified,	46	76	122
Toxic psychoses,	4	6	10
Traumatic psychoses,	2	—	2
Organic dementia,	10	5	15
Not insane,	147	228	375
No diagnosis made,	12	20	32
Huntington's chorea,	1	—	1
Totals,	830	868	1,698

II. PROBLEMS OF HOSPITAL MANAGEMENT.

Although five years of psychopathic hospital work were complete in June, 1917, it cannot be said that the institution's functions are thoroughly understood either at home or abroad. To be sure, the uniqueness of the institution and its national reputation have determined a great deal of correspondence and numerous visitors, administrative, social and medical. Commissions from distant States are sent several times each year to

investigate our plan and operation. Many social bureau heads resort to the hospital for advice about the expansion of mental hygiene work in different parts of the country. The list of medical officers shows men derived from many of the most remote States of the Union. Prof. Elliot-Smith, dean of University of Manchester, England, has gone so far in his book on "Shell-shock" as to instance the Boston Psychopathic Hospital as the type of institution which British psychiatry strongly needs.

Despite this extensive reputation, the functions of the hospital are not at all thoroughly grasped. In the first place, the institution is not in any sense a receiving ward for committed cases, and is not, as so many visiting hospital superintendents are found to believe, an elaborate reception hospital for a State institution of recognized type.

In point of fact, the Boston State Hospital, of which the Psychopathic Hospital is a department, has its own receiving ward properly built and equipped, and receives metropolitan district patients on direct commitment from the probate court. The Psychopathic Hospital's intake of patients, legally speaking, depends on statutes either not found or not suitably constituted in other States of the Union, namely, upon the temporary-care act and the liberal legal arrangements for voluntary patients. It is not too much to say that the Psychopathic Hospital could not do its work were it not for the liberal construction of the temporary-care act and provisions for the reception not only of paying but of indigent voluntary patients. Unless, therefore, a State contemplating the psychopathic hospital type of progress is prepared to place on its books an act like our temporary-care act, and to pay for the expenses of indigent voluntary patients, such a State is not prepared for the psychopathic hospital at all. I place in a footnote the text of the temporary-care act.¹

¹ ACTS OF 1911, 395 (AS AMENDED BY GENERAL ACTS OF 1915, 174).

TEMPORARY CARE IN CERTAIN INSTITUTIONS OF PERSONS SUFFERING FROM MENTAL DERANGEMENT.

The superintendent or manager of any hospital for the insane, public or private, may, when requested by a physician, by a member of the board of health or a police officer of a city or town, by an agent of the institutions registration department of the city of Boston or by a member of the district police, receive and care for in such hospital as a patient, for a period not exceeding ten days, any person who needs immediate care and treatment because of mental derangement other than delirium tremens or drunkenness. Such request for admission of a patient shall be

The management of the Psychopathic Hospital accordingly resembles far more the management of a great public or endowed general hospital than it does the management of a State institution for the insane. Dealing, as we calculate, with something like 10,000 different personalities during a year, namely, with between 3,000 and 4,000 patients and numbers of friends and officials in addition thereto, we conceive that hardly anywhere else exists so intensive and differentiated a community relation as that of the Psychopathic Hospital, with its wards, out-patient department and research laboratories. In fact, officers seeking administrative experience can hardly get in any other institution so quickly a fair sample of most of the problems of human contact in the administrative relation with officials of courts, institutions and social bureaus, friends and relatives of all types and degrees of literacy, and with the intricately constructed neurotic and psychopathic patients themselves. An administrative officer who has successfully overcome the administrative difficulties of the Psychopathic Hospital ought to be competent to meet almost any institutional administrative complications.

We are often astonished at the praise given us for the ease with which we consent to take over socially difficult cases. Most public institutions and most large endowed institutions are beset with a variety of rules excluding patients of such and such an age, settlement, nature and the like. With the Psychopathic Hospital it is a case of *nihil alienum*, and the hospital is the last resort for most cases of social difficulty that have

put in writing and filed at the hospital at the time of his reception, or within twenty-four hours thereafter, together with a statement in a form prescribed or approved by the state board of insanity, giving such information as said board may deem appropriate. Such patient who is deemed by the superintendent or manager not suitable for such care shall, upon the request of the superintendent or manager, be removed forthwith from the hospital by the person requesting his reception, and, if he is not so removed, such person shall be liable for all reasonable expenses incurred under the provisions of this act on account of the patient which may be recovered by the hospital in an action of contract. The superintendent or manager shall cause every such patient either to be examined by two physicians, qualified as provided in section thirty-two of chapter five hundred and four of the acts of the year nineteen hundred and nine, who shall cause application to be made for his admission or commitment to such hospital or, provided he does not sign a request to remain under the provisions of section forty-five of said chapter five hundred and four, to be removed therefrom before the expiration of said period of ten days. Reasonable expenses incurred for the examination of the patient and his transportation to the hospital shall be allowed, certified and paid as provided by section forty-nine of said chapter five hundred and four, as amended by chapter four hundred and twenty of the acts of the year nineteen hundred and ten, for the allowance, certification and payment of the expenses of examination and commitment.

proved refractory to other forms of social service and mental hygiene. As can readily be seen this situation means that an extraordinary individualization in the handling of human material is necessary.

Extracts from the report of the acting administrator are here given.

To the Director of the Psychopathic Department of the Boston State Hospital.

My first annual report as acting administrator is hereby respectfully submitted.

My duties in charge of the administrative activities of the hospital have covered but seven months of the hospital year. I have endeavored to follow the same general lines adopted by my efficient predecessor, Dr. E. H. Cohoon, to whom I am indebted for many suggestions arising from his experience.

I have been much impressed by the varied activities and the numerous points of contact of this institution. In spite of the small population, perhaps few hospitals for the insane have such extensive relations with the public. In these relations perhaps that with the family is the most important. Coming as it does at the time of great stress, and perhaps tragedy, in the family life, the time of admission to the hospital is one when tact, courtesy and sympathy should be manifest. The other public relations — those with the medical profession, the police, the courts, charitable organizations, social agencies and others — are less intimate, but of considerable importance. It is only by watchful administration that the institution can be of the greatest service to the public. When we remember that the great end towards which the internal administration is directed is the welfare of the patient, our attention is at once brought to the nursing service. It is in this service, too, that some of the greatest problems are now encountered. The Red Cross and other agencies are drawing on the female nursing service, and the military activities upon the male. The change in type of male attendant now available is quite manifest, both in temperament and training. To guarantee that maintenance of the previous and proper quality of service rendered to the patient under these conditions is not always easy for the nursing service. The only solution at this time seems to be to utilize the services of female attendants in caring for male patients.

The financial administration has called for watchful supervision, owing to the increase in cost of supplies and the necessity of the unusually large number of increases in wages of employees. Fortunately, the balance is on the right side of the ledger, and it has also been possible to add to the material equipment of the hospital. The war has proven a stimulus for the conservation of articles consumed, and a material success has been secured in the reduction of consumption of food and coal.

If the war has made difficult the securing of attendants, it has made

much more so the securing of physicians. It has been possible to maintain the usual medical efficiency only by the aid of military reserve officers detailed by the government for special training. I feel sure that the efficiency of the hospital could be increased, and the smoothness of its public relations be promoted, by the appointment of a physician to do all the admitting of patients, to substitute in the absence of the executive assistant, and to care for the increased number of written reports and abstracts to be furnished to other hospitals, social agencies, etc. This is the only new position asked for in this year's budget. The budget, however, does call for a full-time, instead of part-time, physician in the out-patient department. I believe this would prove to be an economical step by excluding from the house many patients who might better be committed directly.

The most pressing need in the line of scientific equipment is that of a new X-ray machine. The present machine is expensive as to maintenance and unsatisfactory as to quality of work done. Many kinds of work cannot be carried on with it, notably chest and gastro-intestinal examinations. It may be well to point out the increasing use made of the machine by the main hospital.

The accidents during the past year have been about the usual number. On April 1 a patient died suddenly while in the prolonged baths. At first it was feared that the death might have been suicidal by drowning, but the autopsy by the medical examiner disproved this theory. In June a patient suffered a rupture of the bladder, an injury from which he subsequently died. Neither our own examination nor the coroner's inquest was able to ascertain that the injury was the result of abuse. During the year there has been one case of fractured ribs sustained by a tabetic patient, probably received at this hospital and caused by accident or abuse.

The following table shows a résumé of the nursing work done during the year:—

Daily Average Nursing Service for the Month of November, 1917.

Average number of female graduate nurses on duty daily,	71 ⁶ ₃₀
Average number of female graduate nurses ill or absent daily,	1 ⁶ ₃₀
Average number of female attendants on duty daily,	174 ⁷ ₃₀
Average number of female attendants ill or absent daily,	3
Average number of male attendants on duty daily,	8 ⁷ ₃₀
Average number of male attendants ill or absent daily,	1

The nursing service on Dec. 1, 1917, was as follows:—

Superintendent of nurses,	1
Assistant superintendent of nurses,	1
Supervisor (male),	1
Assistant supervisor (male),	1
Night supervisor (female),	1
Night supervisor (male),	1

Hydrotherapeutist (female),	1
Hydrotherapeutist (male),	1
Graduate nurses,	9
Female attendants,	21
Male attendants,	11
Ward maids,	3

III. MEDICAL AND SCIENTIFIC PROBLEMS OF THE YEAR.

The publications listed in Section VI. indicate the tendencies and results of our work. As in previous years we have continued to do work on psychiatric diagnosis. The most pretentious effort is that in the director's "Key to the Practical Grouping of Mental Diseases."¹ The groups proposed by him are as follows:—

1. Syphilopsychoses (syphilitic group).
2. Hypophrenoses (feeble-mindedness group).
3. Epileptoses (epileptic group).
4. Pharmacopsychoses (alcohol, drug, poison group).
5. Encephalopsychoses (focal brain disease group).
6. Somatopsychoses (somatic disease group).
7. Geriopsychoses (presenile, senile group).
8. Schizophrenoses (dementia præcox group).
9. Cyclothymoses (manic-depressive group).
10. Psychoneuroses (hysteria, neurasthenia, psychasthenia).
11. Psychopathoses (other psychoses and psychopathias).

The eleventh group is the group of unresolved diseases. The key is a key to groups (*i.e.*, the syphilitic group) and not a key to disease genera (*e.g.*, neurosyphilis) or to the species of disease (*e.g.*, parietic neurosyphilis, general paresis).

The key has been devised for the use of tyros and not for experts, although several experts have commented favorably upon the key. This is not the place in which to explain the operations of the key, which has been developed in connection with the daily staff meetings of the Psychopathic Hospital during the last five years, and represents a constant effort to devise a method for examining data already collected upon a given case in a systematic order for successive elimination. For example, no case of mental disease at the present time can properly escape being considered as possibly a phenomenon of syphilis. Five years ago there may have been some doubt of the advis-

¹ Journal Nervous and Mental Disease January, 1918.

ability of uniform Wassermann reactions in all mental cases. To-day there is no doubt whatever expressed by expert psychiatrists.

Second in the list is placed feeble-mindedness, because the Binet tests, with all their faults, are among the most valuable and trustworthy of all diagnostic methods. The rest of the key has been arranged in the order of satisfactoriness of available tests.

A monograph of the Psychopathic Hospital is at the present writing partly written, which will deal with the whole topic of psychiatry from this point of view, and will represent the Psychopathic Hospital material, especially the temporary-care and voluntary cases that have not been subject to psychiatric review to any large extent in previous works. Of course this and kindred publications which we are now ripe to make may be interfered with by war work.

Of work accomplished and brought to completion during the year the above-mentioned monograph on "Neurosyphilis: Modern Systematic Diagnosis and Treatment," by the director and Dr. H. C. Solomon, is the most important. The proof brought in this work that there are more than occasional recoveries in cases diagnosticated general paresis may eventually prove to have a bearing on the number of cases requiring custodial care. Of course the total intake of syphilitic patients into State institutions is something like 1 in 5 among all those admitted, though not all of these are cases of paresis, and not all are mentally diseased because of their syphilis. It is accordingly difficult to offer figures as to the relief of the community could more cures be effected. Natural remissions in syphilis of the nervous system also occur. We found such remissions rather rarely in untreated cases. Indeed, among 300 *untreated* cases recently reviewed there are now but 5 capable of self-support, and 10 more may be regarded as approximately recovered. But among 200 *treated* cases we found at the same date 50 capable of self-support. The claim of 25 per cent. recovery in paresis with intensive salvarsan injections is undoubtedly too high, but there can be no doubt that treatment has produced far more good effects than would have occurred in the course of nature. It is to be remembered, too, that our cases are among the most favorable for treatment,

seeing that they are Psychopathic Hospital cases that have flowed in from the community at an earlier phase of their disease than the insane hospitals have been accustomed to receiving them. It may be remarked that these cases, carried on our books under the Commission on Mental Diseases, must be intensively followed up for a period of years before we can evaluate the treatments given.

Our work has been somewhat interfered with by the war and the difficulty of procuring salvarsan; but the Rockefeller Institute now promises to be able to yield a supply of an equivalent or possibly superior drug.

Among the papers of the year may be mentioned the following:—

(a) Medical diagnosis: 1917.10 (Wassermann reaction in treated cases); 1917.11 (Bruck test); 1917.15 (mastiche test); 1917.16 (classification of diseases).

(b) Medical treatment: 1917.5 (latent syphilis); 1917.18 (neurosyphilitic family); (see also 1917.10 as well as monograph above mentioned).

(c) Mental hygiene: 1917.3 (children for special care); 1917.7 (divisions of mental hygiene); 1917.8 (defectives in prisons); 1917.9 (feeble-mindedness); 1917.12 (medical wardens); 1917.13 (community effort); 1917.14 (psychopathic employees); 1917.17 (social war service); 1917.19 (out-patient work).

(d) Mental tests: 1917.1 (point scale); 1917.2 (tests in dementia præcox and alcoholism); 1917.4 (point scale).

(e) Psychiatric theory: 1917.20 (brains of criminals); 1917.21 (microscopy in dementia præcox).

(f) Psychological theory: 1917.6 (Müller-Lyer illusion).

IV. SOCIAL PROBLEMS, ESPECIALLY IN THE OUT-PATIENT DEPARTMENT.

OUT-PATIENT DEPARTMENT, OCT. 1, 1916, THROUGH SEPT. 30, 1917.

New Patients.

	Male.	Female.
Adults,	307	572
Adolescents,	94	159
Children,	265	126
Infants,	10	8
Totals,	676	865

Grand total, 1,541.

Sources of Visits.

Public agencies:—

Courts,	61
Schools,	72

Other hospitals:—

Doctors,	121
Social service departments,	71

Charity organizations:—

Private,	349
Public,	49

Individuals:—

Doctors,	144
Miscellaneous,	58

Own initiative,	157
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Psychopathic Hospital:—

Wards,	233
Social service department,	226

Total,	1,541
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Reasons for First Visit.

Question of insanity,	129
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Question of mental defect,	467
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Psychoneurosis,	72
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Alcoholism,	23
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Sex offence,	38
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Juvenile delinquent,	82
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Drug habit,	1
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Question of syphilis,	260
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Speech defect,	43
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After-care:—

Psychopathic Hospital,	233
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Other State hospitals,	15
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All other cases,	178
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Total,	1,541
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Social Problems presented.

Question of institutional care,	366
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Question of vocational guidance,	14
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Delinquency,	149
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Sex delinquency,	39
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Illegitimacy,	45
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Insufficient income,	22
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Unemployment,	21
Bad home,	51
Pathological condition,	457
No social problem,	377
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Total,	1,541

Classification according to Diagnoses.

Acute alcoholism,	6
Acute alcoholic psychosis,	4
Alcoholism,	5
Alcoholism (chronic),	12
Alcoholism (chronic)+question of deterioration,	1
Alcoholic hallucinosis,	15
Alcoholic hallucinosis (acute),	2
Alcoholic hallucinatory dementia,	1
Alcoholic epilepsy; question of psychopathic personality,	1
Alcoholic neurosis,	1
Alcoholic paranoid condition,	1
Alcoholic psychosis,	1
Alcoholic psychosis (unclassified),	1
Arteriosclerosis,	2
Arteriosclerosis; question of alcoholic hallucinosis,	1
Arteriosclerosis (with deterioration),	1
Arteriosclerotic dementia,	4
Arteriosclerotic psychosis,	1
Arteriosclerosis; cerebral hemorrhage,	1
Arthritis,	2
Cerebral arteriosclerosis,	4
Cerebrospinal syphilis,	1
Chorea,	7
Chorea, question of,	3
Chorea (minor),	1
Chorea with symptomatic psychosis,	1
Chronic alcoholic deterioration,	2
Compulsory neurosis,	1
Convulsive tic,	1
Cystic neurosis,	1
Defective (question),	1
Deferred,	181
Deferred (psychoneurosis or involutional depression),	1
Delirium tremens,	5
Dementia præcox,	38
Dementia præcox (hebephrenic),	2
Dementia præcox (paranoid),	3

Dementia præcox; question of neurosyphilis,	3
Dementia præcox (catatonic),	1
Dementia præcox (incipient),	1
Dementia præcox, question of; manic-depressive insanity (depressed),	7
Dementia præcox, question of; psychoneurosis, question of,	1
Delirium tremens+neurosyphilis,	1
Epilepsy,	39
Epilepsy, question of,	1
Epilepsy+feeble-minded,	1
Epilepsy+syphilis,	1
Epileptic psychosis,	3
Epilepsy (alcoholic),	1
Facial tic,	1
Feeble-minded,	276
Feeble-minded (Cretin, question of),	1
Feeble-minded (dementia præcox, question of),	1
Feeble-minded+epilepsy,	6
Feeble-minded (Mongolian idiot, question of),	1
Feeble-minded+syphilis,	1
Feeble-minded, question of,	6
Feeble-minded+chorea,	1
Feeble-minded+congenital syphilis,	1
Feeble-minded+cerebrospinal syphilis,	1
Feeble-minded+depression,	1
Feeble-minded+deaf mute,	1
Feeble-minded (Mongolian),	1
Feeble-minded+epilepsy, question of,	1
Feeble-minded+epilepsy+syphilis,	1
Feeble-minded+epilepsy, question of+organic brain disease,	1
General paresis,	25
General paresis, question of,	5
Habit,	1
Hysteria,	7
Hysteria, question of,	1
Hysteria; question of migraine,	1
Hydrocephalus,	1
Involutional depression,	1
Involutional melancholia,	1
Luetic,	6
Manic-depressive insanity+psychoneurosis, question of,	1
Manic-depressive insanity,	14
Manic-depressive insanity (depressed),	13
Manic-depressive insanity (hypomanic),	2
Manic-depressive insanity (involutional melancholia),	1
Manic-depressive insanity (involutional depression),	1

Manic-depressive insanity (manic),	6
Manic-depressive insanity (mild depression),	1
Manic-depressive insanity (manic)+feeble-minded,	1
Manic-depressive insanity (depressed)+question of general paresis,	1
Manic-depressive insanity, question of,	2
Mitral regurgitation — debility,	1
Moron,	3
Moron with latent lues,	1
Morphinism,	1
Moral delinquent,	7
Nervous irritability,	3
Neurasthenia,	3
Neurosyphilis,	11
No mental disease,	81
No nervous or mental disease,	50
No nervous or mental disease (delinquent),	1
No nervous disease (neurotic child),	1
Not feeble-minded,	19
Not insane — not feeble-minded,	18
Not insane — not feeble-minded (delinquent),	1
Not insane — not feeble-minded; question of congenital syphilis,	1
Not insane, psychopathic personality; question of feeble-mindedness,	1
Not insane, psychopathic personality,	3
Not insane,	3
Not insane (hysteria),	1
Not insane (psychoneurosis),	1
Not insane (cerebral thrombosis),	1
Not insane; feeble-minded; arrested lues,	1
Not insane, question of feeble-mindedness+alcoholism,	1
Not insane; syphilitic ostosis of skull at site of old trauma,	1
Not insane — psychoneurosis (recovered),	1
Not luetic,	145
Not diagnosed,	27
Not psychopathic (habitual drunkard),	1
Neurosyphilis; trauma of the skull,	1
Not feeble-minded or defective,	1
Not insane (habitual drunkard),	1
Not psychotic — not feeble-minded,	1
No neurological condition,	1
Organic brain disease (arteriosclerosis),	1
Organic cardiac disease,	1
Organic dementia,	1
Paranoid condition,	3
Paranoid psychosis,	1
Paralysis agitans,	2

Paraphrenia,	2
Pavor nocturnus,	1
Peripheral neuritis,	1
Pernicious malarial psychosis,	1
Post apoplectic (luetic),	1
Post operative debility,	1
Presenile dementia,	1
Psychasthenia,	10
Psychoneurosis (not insane),	1
Psychoneurosis (traumatic),	1
Psychoneurosis (arteriosclerosis),	1
Psychopathic personality,	7
Psychopathic personality, question of; question of hysteria + syphilis,	1
Psychoneurosis,	113
Psychoneurosis, question of,	8
Psychoneurosis; question of dementia præcox,	1
Psychosis,	2
Psychoneurosis (hysteria),	1
Psychoneurosis + epilepsy, question of,	1
Psychoneurosis, question of; question of diabetic neuritis,	1
Psychoneurotic; neurasthenic,	1
Psychopathic personality, question of,	1
Periodical drinking,	1
Paraphrenia systematica,	1
Retarded,	35
Retarded; question of chorea,	1
Senile dementia,	3
Senile psychosis,	1
Spastic paraplegia,	1
Speech defect,	38
Subnormal,	59
Symptomatic psychosis,	1
Syphilis,	6
Syphilis (latent),	1
Syphilis (congenital),	7
Syphilis, cerebrospinal,	3
Syphilis (acquired),	17
Syphilis (acquired, question of),	5
Syphilis (congenital, question of),	8
Syphilis + chronic arthritis,	1
Trauma — alcoholism; question of feeble-mindedness,	1
Tabes; question of general paresis,	1
Tic,	1
Traumatic neurosis,	2
Toxic psychosis; question of alcoholism; question of renal disease,	1

Unclassified,	6
Unclassified, alcoholic hallucinosis or neurosyphilitic,	1
Unclassified, alcoholic psychosis,	1
Unclassified (arteriosclerosis preferred),	1
Unclassified, depression,	1
Unclassified, epilepsy + alcoholism,	1
Unclassified, paranoid condition,	5
Unclassified psychosis,	7
Total,	1,541

*Number of New Patients Each Month.***1916.**

October,	107
November,	114
December,	133

1917.

January,	136
February,	140
March,	146
April,	143
May,	145
June,	124
July,	116
August,	141
September,	96
Total,	1,541

*Number of Visits Each Month.***1916.**

October,	660
November,	700
December,	678

1917.

January,	701
February,	710
March,	845
April,	769
May,	774
June,	643
July,	570
August,	738
September,	489
Total,	8,277

The activities that center in and radiate from the out-patient department are among the most important of the Psychopathic Hospital's activities. The out-patient department, with its medical, social and psychological services, forms a unit somewhat divorced from the ward treatment and research work of the Psychopathic Hospital as a whole. It would indeed be possible for a community to start effectively an out-patient department following this model without the establishment of the psychopathic hospital in its entirety. We have frequently given advice in this direction to inquirers from other States and communities in a less advanced situation. It is the consensus of expert opinion hereabouts that no urban social situation can properly be met without some such institution as the out-patient department of the Psychopathic Hospital. This is the more remarkable as Massachusetts already possesses relatively far more social agencies of a public, semi-public or private character, dealing more or less intimately with psychopathic problems, than most States of the Union.

It must be our duty and aim to handle as many psychopathic problems in the out-patient department without transfer to the wards as is possible. Resort to the wards of the Psychopathic Hospital by means of the temporary-care act is so facile that it is possible to overwork the virtues of the temporary-care idea. It will be increasingly our aim to handle problems so far as possible in the out-patient department, which ought to grow into a far larger machine, handling perhaps twice as many or three times as many patients per annum as at the present time (during current year, 1,541 new cases). According to the present outlook there should be a medical chief of the out-patient department staff who shall be an exceedingly competent psychiatrist, equipped for rapid diagnosis, and fully in touch with the social and community aspects of his work. He should be aided by assistants who should develop especially the work of examining children, delinquents and neurological cases.

The work with children, set on its feet by Prof. W. P. Lucas, now of the University of California, has kept constantly to its original bulk and quality of work. Our examination of delinquents has likewise proceeded as usual with the co-operation

of numerous agencies, among which may be especially mentioned the Training School for Girls, under the skilful and comprehensive management of Miss Edith N. Burleigh, who has sent to us many of her stubborn and wayward girls. These have often had light thrown upon their characters by psychiatric analysis, frequently when they have not been determined to be committable to asylums or victims of definite psychoses. Even when these cases need prolonged observation in the wards, the differentiated construction of the Psychopathic Hospital building permits their being kept under satisfactory conditions without contact with active cases.

But aside from the work with children and the work with delinquents, already well established in previous years, it is important for us to develop the neurological side of the outpatient department, so that the increasing number of psychoneuroses and mild or border-line organic neurological cases shall come under examination. The general tendency in the world at large is to unite neurological and psychiatric effort in units and clinics which are coming to be termed *neuropsychiatric*. Whereas the State (aside from the accommodations at the State Farm at Tewksbury) has few institutional accommodations for chronic neurological cases, nevertheless even outpatient service in the matter of diagnosis and initial treatment will do a world of good. When the dimensions of the problem of the neuroses in the community are established, undoubtedly the State will proceed to proper institutional care and treatment for them; and when the neuroses, psychoneuroses and mild psychoses are duly taken care of by the State, it will doubtless prove possible to establish good convalescent units of a sanatorium type. The ideal of a public sanatorium for these cases has long been before the authorities in Massachusetts, although no definite legislation has recently been proposed. Doubtless some modification of the colony and cottage plan may well be adopted for these cases, with the avoidance of leviathan fireproof block buildings and adherence to a plan for moderate-cost, one or two story cottages.

It is in these directions that the work of the outpatient department now looks, as well as in the direction of early diagnosis of community problems, such as backward schoo

children, youthful "terrors," stammerers, industrial accident psychoses and the like. In brief, the out-patient records of the Psychopathic Hospital form a mine of information probably unexcelled in any part of the world for studies of the direction which public care of non-custodial mental and nervous cases should take.

I must again insist on the desirability of more paid workers in the social service at the out-patient department, as well as in connection with ward cases. The estimated number of such workers still stands at 7 on a modest basis of estimate. The director of the social service, Miss Mary C. Jarrett, has acquitted herself well of the task of getting "something for nothing," namely, of getting reasonably expert social work performed by numerous workers-in-training. The field is beginning to appeal to social workers. A brief analysis of Miss Mary Richmond's book on "Social Diagnosis" shows that fully half the case studies therein have important psychiatric sides. What we have come to term psychiatric social service is coming to be recognized as a regular branch of social service. Indeed, I have just been asked (as I write these lines) to start a new course for a few mature workers in social psychiatry, — a course to be given at the School for Social Workers, under auspices which insure the turning of the attention of many good workers to our field. Remarkable charts of the before-and-after type have been produced, illustrating what social work can do with psychopathic cases, both in the direction of financial relief and setting up in business, and also in the direction of family adjustments. I think investigation will also show that the social workers in our hospital do not rush in to the more dangerous and delicate problems of human adjustment touching the authority of courts, on the one hand, and the intimacies of individual life, on the other. Indeed, the division of these interests into (a) public or governmental interests, (b) social, *i.e.*, non-governmental, community interests, and (c) individual or personal interests is coming out very clearly in our work. It is becoming established that there is, first, a public or institutional psychiatry; secondly, a non-institutional social or community psychiatry; and thirdly, a psychiatry of the individual. It is the latter which certain physicians, unversed

in social service and antagonistic to administrative authority, interest themselves in. But these more individualistic physicians, when their problems become socially perturbing, are very apt to shift them to the Psychopathic Hospital's shoulders, where the social point of view is paramount.

In the remainder of this section I give extracts from the report of the director of social service.

INDIVIDUAL CASE WORK.

The new cases dealt with individually by the social service, apart from follow-up work and the Men's Club, were 15 per cent. of all admissions to house and out-patient department. If our original estimate, that 50 per cent. of admissions call for some social attention, is approximately correct we are meeting about one-third of the demand. There were 270 new cases in the intensive group and 191 in the slight service group. In addition, 25 old cases were renewed within the year and 51 cases were carried over from the previous year, so that the total number of cases in which social case work was done was 537. At the end of the year 114 patients were still under care, — 44 for social supervision; 54 for advice and general assistance; 2 for financial aid; 5 for observation with reference to medical diagnosis and care; and in 9 cases history for diagnosis was being sought.

The function of securing social histories for medical diagnosis is an important part of social service activities. Sixty-three cases, or $23\frac{1}{2}$ per cent. of the 270 new intensive cases, were dealt with solely for full history for diagnosis, and presented no problem that called for social treatment. In a similar proportion of the slight service cases the object was to secure a history in part. At the present time a large part of this work falls to students in training, as they can be trusted to make inquiries and gather information when they have not yet acquired experience to fit them to handle problems of social care with responsibility. Obviously they are also not prepared for good history taking. The physician is apt to look upon this function of the social service as its most important duty, since his primary responsibility to the patient is to endeavor to make a correct diagnosis. In a sense it is also the primary responsibility of the social worker to contribute to this object, which is the hospital's first duty to the patient. Equally important to the social worker, in addition, is the welfare of the patient in the community, for whom the benefit of careful diagnosis can be secured in many cases only by painstaking, thorough social care. The social worker who is engaged in social treatment is bound to feel a certain sense of interruption when histories for medical diagnosis cause deferred attention to social cases. The success of social treatment may depend upon timeliness, steadiness, persistency or close application, and emergencies continually arise when least

expected. No matter how thoroughly the social worker recognizes the importance of the medical-social history, she cannot feel the same enthusiasm in devoting a day's work to it, while perhaps neglecting work that is her own immediate responsibility, that the physician would feel. This is especially likely to be true if the significance of the history turns upon some fine medical point. Therefore it would probably be more effective, if we had more social workers, to have certain ones give all their time to getting medical-social histories, and seek to develop special skill under instruction from physicians. To have two social workers for this purpose, one or the other of whom should always be in the hospital during the day for interviews, would seem to be a more serviceable plan than the present method. The present clinical historian, though not connected with the social service department, has developed practically into a social worker, and has acquired the technique that a social worker specializing in history-taking would aspire to learn. That a better co-ordination of history work is necessary is indicated by a certain amount of confusion that now exists among the three agents engaged, — the physician, the clinical historian and the social service.

The desirability of routine social examination of all admissions seems as clear and as distant as two years ago, when the director referred to it in his annual report for 1915. With two assistants it is not possible to undertake the work, which would require about full time of one person. At present, determination of the need of social care is necessarily left to a physician, who perhaps is not familiar with the practice of social work or accustomed to look for social disorder. Examples now and then come to light of the unfamiliarity of the physician with the possibilities of social case work. A little hysterical girl was discharged to her foster mother for whom she had a strong dislike, without recommendation. The case came to the attention of the social service accidentally through being presented at a social clinic on the day of discharge, and was considered a case for social care. The foster mother was then seen, but she said she had not been told by the physicians that she needed any advice about the child, and intended to send her to an institution, which she did. One of the patients whom we have been the most successful in helping was discharged without being known to the social service. Some months later a physician in the city interested in her asked our advice and put the case under our care. After a good deal of persistent, careful work the patient became healthier and happier than she "ever was," she says. A young Englishman discharged after an alcoholic attack, with a present of several dollars from the examining physician, "going to Canada," came back a few days later drunk and bedraggled, — a clear case this time for the social service.

The cost of travel for case work was looked up this year in a number of social agencies. Our average of \$5 a month for an assistant and \$3 a month for a student is comparatively low. The explanation may be that we perhaps make more use of the telephone, and that a larger number

of persons come to see us at the hospital. The student naturally would not cover so much ground as a trained worker; and an assistant gives some of her time to oversight of students. The average stated does not provide for long-distance trips by train. These are avoided as much as possible by invoking aid from local social agencies, unless the nature of the case demands a visit from one of our workers. The average monthly cost of travel for a social worker in certain other agencies is as follows:—

Children's Aid Society (Bureau of Investigation),	\$13 53
Society for the Prevention of Cruelty to Children,	7 54
Juvenile Court (woman probation officer),	11 50
District Nursing Association (allowance voted by Board of Directors before the work was districted),	12 00
Boston State Hospital (amount spent in April, 1917),	4 85
Danvers State Hospital (includes patients' traveling expenses, meals, express),	45 00
The Church Home Society (includes long-distance trips to New York, Nashua, Taunton, etc. Deducting these the average is reduced to \$7),	14 00
Girls' Parole Department (largely out of town travel) may range from	\$15 00-40 00

THE CLINIC MANAGER.

The duties of the clinic manager at present fall into two groups, — executive or clerical work, and work of social interest. The amount of work is becoming too heavy for one person. When assistance can be obtained, a transfer of the clerical duties to a competent stenographer under the general direction of the clinic manager would probably give the best results. A somewhat larger salary for the clinic manager, which would make it possible to engage a trained social worker for the position, would add to the effectiveness of the out-patient service, both in relation to obtaining social history needed for medical diagnosis and to discovering social problems in the cases. General hospitals are demonstrating the value of a social worker on duty during the clinic.

The social interests in an out-patient department may be stated as follows:—

Follow-up service:—

Letters, telephones and visits.

Syphilis service—patients and family prophylaxis:—

Letters, telephones and visits.

Personal attention in clinic—"hostess" idea:—

To see that patients are comfortable and understand their situation.

To see that patients and friends with them understand the physician's directions.

Histories:—

Social information with social significance.

Social information with medical significance.

Social information for statistical use.

Social problems:—

To assist in discovering and dealing with social problems of out-patient cases.

To see that patients are able to carry out physician's directions.

Social agencies cases: —

- To act as a go-between between outside social workers and the physicians.
- To answer telephone inquiries.

The present duties of the clinic manager are as follows: —

Executive: —

- To direct patients to the examiners during the clinic.
- To keep in order the records of the out-patient department.
- To keep statistics of the out-patient department.
- To see that reports of examinations are sent to social agencies.

Social: —

- To take a social history on new patients in the out-patient department.
- To assist in discovering and dealing with the social problems of out-patient cases.
- To see that patients and friends with them understand physician's directions and are able to carry them out.
- To act as a go-between between outside social workers and the physicians.

Following are extracts from report on the follow-up service of the department, made by Miss Dorothy Q. Hale: —

FOLLOW-UP SERVICE.

The follow-up service of the Psychopathic Hospital was started in December, 1913, and since then its activity has steadily increased. Its aim is to make sure that every out-patient reports to the hospital at the time appointed by the doctor, and thus to prevent as far as possible the development of his disease by the recognition and treatment of his early symptoms; or, if his disease is fully developed, to assure him the benefit of continued treatment in the out-patient department, when this is advised by the doctor.

Two classes of patients are usually not entered on the lists of the follow-up service. The syphilitic patients and their relatives reporting for Wassermann test are followed by a special worker; and the patients belonging to the epileptic clinic are not followed unless the doctor in charge asks that it be done for a special patient.

During the year Oct. 1, 1916, to Sept. 30, 1917, there were 1,048 patients on the lists of the follow-up service. Of these, 83 (8 per cent.) reported throughout the year without a reminder; 513 (49 per cent.) reported as the result of at least one reminder during the year; 19 (1 per cent.) gave a legitimate reason for not reporting; and 433 (42 per cent.) failed to report at all during the year. One hundred and fourteen of the 513 patients listed as reporting with reminder were lost later in the year.

Of the above patients 174 were old patients carried over from the year before; 433 were new patients coming to the out-patient department for examination and treatment; 421 were patients who were discharged from the house to the out-patient department for after-care; and 20 were patients discharged from other State insane hospitals to our out-patient department for after-care. They were of all ages, and their diagnoses covered a large field of mental troubles.

The total number of visits paid by these patients to the out-patient department during the year was 2,012; of these, 1,339 were paid as a result of the patient's own initiative, and 673 were paid as a result of a reminder from the hospital.

Psychotic patients formed a large group. Some of them came to the out-patient department for the first examination, and were either transferred to the house or to some other hospital as in-patients, or continued in the out-patient department for treatment. The large proportion of the psychotic patients, however, are discharged house patients. They are allowed to return to the community, but report frequently to the doctors in the out-patient department. There is also a small group of mental defectives who are not committable but who should be re-examined at the end of six months or a year. The largest groups on the lists of the follow-up service are the psychoneurotics and alcoholics. A great deal of time is spent in following the alcoholics. To make the treatment effective, the majority of them should be in the care of the social service. I have in mind the cases of two patients known to us last winter. They reported to the out-patient department, and in both cases the doctor's note said that they were doing well. In both cases we received by chance a little later a report from the relatives which showed that they had been drinking steadily. One of the patients was brought into the house a few days later by the police, and was then committed. If these men had been in the care of the social service the doctor in the out-patient department would have had a report from the relatives before he saw the patients.

On our list are also patients who appear to be recovered, for whom we inquire at stated intervals. For instance, there is a girl who was discharged from the house with the diagnosis of dementia præcox, and who has since graduated from high school. There is an epileptic boy who is now apparently well, but for whom we will inquire next year. And there is a woman who came to us for after-care from one of the State hospitals, with the diagnosis of manic-depressive insanity. At the end of six months she was discharged from our out-patient department cured, and a year from that time reports herself as being well.

We keep track of the patients and the visits due by them to the out-patient department by means of a temporary chronological file and a permanent alphabetical file.

The chronological file consists of the "memorandum for return," slips which give a space for the date the patient reports and one for the date he is next due. These are filled out by the doctor every time that the patient reports, and are filed chronologically under the date when the patient is next due in the out-patient department. When the patient comes for his appointment this slip is destroyed. In this way the follow-up worker can tell which patients are due on any given date.

The alphabetical file consists of the "follow-up" cards, which give the patient's name and number, and a square for every day of the year. These are marked by the follow-up worker every time a patient reports, giving

the date of his visit and the date he is next due, and are kept in a permanent alphabetical file. These cards are also marked when any work is done for a patient who is overdue. In this way the follow-up worker can tell when any patient is due in the out-patient department, and, if he is overdue, what work has been done for him.

As soon as the patient is overdue, our regulation printed follow-up letter is sent to him, saying that the doctor wishes to see him. If this is unsuccessful another follow-up letter, or a personal letter or telephone message, is sent to him, and finally he is visited at his home. If, however, the patient is in the care of a social agency, or of our own social service, the visitor in charge is notified that the patient is overdue, and he is not followed by the follow-up visitor.

We have statistics from Jan. 1, 1917, to Sept. 1, 1917, showing the results of the follow-up letters, and visits during that period. There were 1,020 letters sent out. Of these, 80 per cent. were immediately effective, — the patient came within a week of the day of receipt; 8 per cent. more became effective when followed by another letter; and 4 per cent. became effective when followed further by a visit. This leaves 8 per cent. which were ineffective in spite of being followed by a second letter and visit. This does not mean that 1,020 letters were sent to as many different patients, as in some cases the patient had to be reminded of each of his successive visits.

The expense for following the patients for one year, estimated on the basis of the expense for February, March and April 1, 1917, is \$96.50; postage, \$38.50; telephone calls, \$3.60; and car fares for visitors, \$54.40. The visitor in charge is a half-time volunteer worker, and has been aided by part-time volunteers and by the students of the social service. The latter have spent their first ten days in making follow-up visits. In my opinion the percentage of lost patients could be very much reduced if the staff of the follow-up service were larger.

We are asked if we do not antagonize the patients by following them. We probably do so among the small number who already dislike the hospital, but the above statistics stating that 80 per cent. of our letters were effective within a week seem to prove that this is not true of the majority of patients. The letters we receive in answer to our follow-up letters also show lack of antagonism on the part of the patients. For instance, one man writes: —

DEAR FRIEND: — Referring to your letter of September 19, I wish to state that I shall be very glad to comply with the doctor's wishes, and come in to see him next Saturday afternoon, if it is convenient for him to see me then. Not hearing from you to the contrary, I shall be there at 3 o'clock to see him.

I thank you very much for your kind and generous attention in this matter. It means a great deal to me to know that you have not forgotten me.

One mother with whom the follow-up worker had established friendly relations by writing letters inquiring for her son, and asking her to send him in to see the doctor, finally came herself to ask the advice of the

social service. The patients also tell their neighbors of the "kindly interest taken by the hospital." One morning when I was sitting in the out-patient department, not during clinic hours, a woman walked in and wanted to know if this was the Psychopathic Hospital. She said that a friend — a woman to whom I remembered having sent follow-up letters — told her that there was no hospital like this for taking care of one. She was willing to sit down and wait three hours to see the doctor. The follow-up service seems to form a friendly link between the hospital and the community.

Report for the Year Oct. 1, 1916, to Sept. 30, 1917.¹

Patients: —

Due to report,	1,048
Reported with reminder,	513
Reported without reminder,	83
Failed to report, ²	452

Visits: —

Total visits,	2,012
With reminder,	673
Without reminder,	1,339
Patients who reported with reminder,	513
Letter, telephone or notice,	455
Visit,	58
Visits made as a result of reminder,	673
Letter, telephone or notice,	609
Visit,	64

New patients reporting for second visit: —

Who were due to return within the year,	433
Who reported with reminder,	55
(a) As a result of letter, telephone or notice,	51
(b) As a result of follow-up visit,	4
Who reported without reminder,	202
Who gave legitimate reason for not reporting,	4
Who failed to report,	172

New house patients: —

Who were due to return within the year,	421
Who reported with reminder,	61
(a) As a result of letter, telephone or notice,	47
(b) As a result of follow-up visit,	14
Who reported without reminder,	155
Who gave legitimate reason for not reporting,	13
Who failed to report,	192

Old patients: —

Who were due to return within the year,	174
Who reported with reminder,	46
(a) As a result of letter, telephone or notice,	38
(b) As a result of follow-up visit,	8

¹ This does *not* include patients on visit from other State hospitals. (See page 53.)

² An addition of 114 patients after one or more visits failed to keep later appointments.

Old patients — *Con.*

Who reported without reminder,	60
Who gave legitimate reason for not reporting,	1
Who failed to report,	67

Further visits from all patients: —

Made within the year,	1,961
Made as a result of reminder,	656
(a) As a result of letter, telephone or notice,	593
(b) As a result of follow-up visit,	63
Made as a result of patient's own initiative,	1,305

Patients on Visit from Other State Hospitals for the Year Oct. 1, 1916, to Sept. 30, 1917.

Patients: —

Due to report,	20
Reported with reminder,	14
Reported without reminder,	3
Failed to report, ¹	3

Visits: —

Total visits,	51
With reminder,	17
Without reminder,	34

Patients reporting who were listed as Lost on 1915-16 Chart.

New patients reporting for second visit: —

Reported with reminder,	—
Reported without reminder,	4

New house patients: —

Reported with reminder,	2
(a) As a result of telephone, letter or notice,	1
(b) As a result of visit,	1
Reported without reminder,	3

Old patients: —

Reported with reminder,	5
(a) As a result of telephone, letter or notice,	5
(b) As a result of visit,	—

SOCIAL WORK WITH SYPHILITICS AND THEIR FAMILIES.²

The function of the social work in syphilis at the Psychopathic Hospital is twofold, — first, to arrange for treatment for known syphilitics, and second, to see to it that the families of these patients are examined so that those found to need treatment may receive it.

Examination of the families of syphilitics has long been recognized as necessary, but our problem is special in that it includes the examination of the families of neurosyphilitics, that is, those patients suffering from paresis or softening of the brain, tabes or locomotor ataxia and other diseases of the nervous system. The hospital considers it its duty to see that every patient has a Wassermann test for syphilis, and that the rela-

¹ In addition, 9 patients after one or more visits failed to keep later appointments.

² By Maida H. Solomon.

tives of those having syphilis — the wives and children who have been exposed to infection — be offered the opportunity of finding out whether they have been infected or not. As syphilis is an infectious disease, when one member of a family has it others are likely to acquire it.

The medical and social approaches to the problem of the syphilitic are closely allied. The doctor makes the necessary tests and examinations, decides whether it is worth while to treat the patient, whether he should be an out-patient or remain in the hospital, etc. But it is the social worker who arranges for out-patients to enter the house, at the doctor's request, for lumbar puncture and observation; who sees to it that patients return to the out-patient department for further Wassermann tests when the first ones are doubtful; who gets permission from the family for operations urged by the doctor; who talks over social difficulties with patients regularly twice a week at the medical clinics; who arranges for treatment at the Psychopathic Hospital, either in the house or out-patient department, for patients with nervous system involvement, or at the general hospitals and dispensaries and offices of private doctors when there is no involvement of the nervous system; and who is responsible to see that the doctor's recommendations as to treatment and home care are carried out.

Again, in the family work the doctor and social worker must co-operate. The social service deals with three groups, — the married, the unmarried under eighteen, and the unmarried over eighteen. In group 1, when the original patient is married, the spouse and children are examined. In group 2 it is suspected that the patient may be a congenital syphilitic, so that the parents and all siblings under eighteen are examined. With group 3, the unmarried over eighteen, the social work is relatively simple, as, assuming that the syphilis was acquired in adult life, no family examination is entailed, and all that is necessary is to see that the patient himself is adequately cared for.

In dealing with the first two groups considerable social effort is involved. A letter is written by the worker to the family, followed by an interview at the hospital, or a visit to the home when the two former methods are not effective. When the families have been persuaded to report to the hospital they are turned over to the physician, the psychologist and the out-patient historian. A physical and psychological examination is made, including the Wassermann test and various mental tests. A family history is taken of adults, with reference to possible infection, history of pregnancies, occupation, income, status of spouse; and of children in regard to development, diseases, education, work, recreation and character. Often one examination is not sufficient for diagnosis, and the worker arranges to have the relatives return for repeated or periodical examinations. If syphilis is found, the relative becomes a patient and arrangements are made for treatment as with original patients.

As a result of examination of families, much undiscovered syphilis — both conjugal and congenital — is discovered. As a result of treatment

patients have been able to return to home and work, while without treatment the large majority of them would have remained in the hospital until death, or, if out-patients, could never have become economically fit.

An interesting feature of the work is the opportunity for co-operation with outside agencies for adults and children, — public and private, medical and relief, religious and educational. Agencies ask to have tests or treatments arranged for patients in whom they are interested; often it is advisable to confer on the disposition of problem cases; sometimes outside agencies help pay for treatment when the case has been brought to their attention; often an agency which has been dealing with a family for years, and has well-established relations, will gladly co-operate in seeing that the family reports at our request; again, we send our patients to other agencies for complete medical or social examination and treatment. The hospital also co-operates with the individual doctor in private practice by making tests for him and advising with him on his patient's diagnosis.

Intensive and extensive work with syphilitic families brings out various problems. The most frequent question asked by the layman in regard to the conduct of the work is, "How do you tell the relatives that you want them to be examined for syphilis?" Often when the patient's diagnosis is general paresis, the relatives already have a suspicion why we want them to be tested. As a rule, the social worker's discussion does not hinge on syphilis. It is pointed out that the spouse is sick, that this sickness is likely to be found in the mate and children, and that to decide this and to avoid future complications we want to have the doctor examine the family. In the large majority of cases a general statement of this kind suffices, and if the examinations indicate that there is no familial syphilis nothing further is said. On the other hand, if there is evidence of syphilis, and this evidence has been substantiated by further tests where necessary, the patient is referred by the social worker to the doctor in charge of the case. It is the principle of the hospital to be frank in these cases, so that there can be no recriminations afterward. The doctor may at first say that the patient has a blood disease and that the mate or children are not free from it, etc., but eventually the definite information is given. The whole discussion is on a scientific rather than a moral basis. Syphilis does not figure as a moral disease or stigma. We do not probe into the method of contraction. We may tell the wife that quite probably the spouse contracted the disease before marriage. It should be noted that the doctor himself gives the information that the patient has syphilis, unless he has specially authorized the social worker to do this. No family upheavals nor any undue unhappiness have ever resulted from our handling of several hundred cases in this manner.

It must be remembered that we are dealing frequently with late syphilis, — syphilis which has been dormant for many years. Thus if treatment is instituted it means that it must continue over a long period of time to be of any avail. Here we face another problem; where is the money coming

from to provide adequate treatment for our patients, the large majority of whom were poor to start with, whose incomes have been diminished or cut off by industrial decline or disability over a period of months or years? Relatives, when asked to contribute, often do at a considerable sacrifice, but often cannot. An occasional employer is interested enough in his employee to help, or the patient may receive a sick benefit from a lodge. The hospital does not provide free treatment except in infectious cases. We turn to public and private relief agencies, and try to persuade them that syphilis detection and treatment is an integral part of their preventive work. Many societies co-operate generously; others demur, saying, "The money for such work should come from the State;" "The Board could not give *medical aid*." Yet this very Board will doubtless help the family when the patient is committed to an institution and the family is destitute. The solution seems to lie ultimately with the State.

Another problem we face is how to get seemingly well relatives, who are without symptoms yet show evidence of syphilis (laboratory or otherwise), to take treatment. We try to explain the necessity of a long course of treatment; we follow the patient up when he has been recommended to go to a dispensary; but this is not enough. We cannot fully cope with these problems until the general public is educated in regard to syphilis and its manifold problems. We cannot possibly be frank with our patients until the conception of the world in regard to syphilis has been broadened, and until the public is "safe" for information. What is the situation now? One of our leading newspapers writes, in regard to publishing the word "syphilis": —

We cannot at the present time use the word "syphilis" in our columns. We are catering to a tremendously wide public, and our language must be the language used by the public in ordinary conversation. It cannot be a language of a specialist or of the laboratory. I think without question the word "syphilis" to be offensive to a large majority of readers. . . .

We trust that, in spite of the editorial policy, the public is sufficiently enlightened to read the word at least. Again, we find on inquiry of a relief organization that the idea that a man is justly paying for his sins sometimes hinders a "benevolent individual" from giving \$100 to the treatment of a neurosyphilitic on the chance of restoring him to home and work. Somehow or other interest must be centered on the familial and economic effects of syphilis at all stages, as well as on its medical aspect. Closely allied to the medical attack, which includes the establishment of clinics for diagnosis and treatment and adequate medico-social work, are the legal and social attacks.

What laws are there to prevent the spread of syphilis? Of the 48 States in the Union 30 have some law as to the employment of syphilitics in food shops, bakeries, ice-cream parlors, barber shops and the like. Eleven of these also have miscellaneous laws, such as the law in Florida, that the State Board of Health is to distribute educational literature; in

Iowa, Oklahoma and Vermont, that wilful communication shall be penalized; in Kansas and Louisiana, that the use of public baths and swimming pools shall be forbidden; in Massachusetts, that syphilitic prisoners shall be segregated; in Vermont, that free treatment shall be provided. Eighteen States, however, have no such laws.

Turning to marital questions we find that there are some provisions in regard to syphilis as a bar to marriage in 8 States, namely, Indiana, Michigan, North Dakota, Oregon, Utah, Wisconsin, Pennsylvania and Vermont. The east is not largely represented. It seems almost impossible, yet it is true, that syphilis, one of the greatest of human scourges, is a reportable disease in but 13 States, and even here there are exemptions to the laws.

Although these laws exist on the statute books we question how many of them are carried into effect. Vermont, for instance, has far-reaching laws, stating that a person who knows he has syphilis or gonorrhea and who marries is subject to imprisonment or fine; a person who has sexual intercourse while suffering from syphilis or gonorrhea is also liable; a doctor shall be fined for not reporting known and suspected cases; quarantine and treatment are left to the discretion of the Health Board. But only \$1,000 is appropriated to carry out the law. The question has been raised, "Is this a paper blockade?"

New Zealand outdoes the States in the adequacy of her law, which provides that every infected individual must remain under treatment until cured; if he cannot protect individuals from infection while at large, he must go to a hospital where, if poor, he will be given free treatment. If a patient does not return for treatment the city doctor is compelled to *and has the power to make* the patient take treatment. Doctors must call attention to dangers of familial infection, and must make weekly reports of those treated.

Some of the economic or social results of syphilis are broken homes, desertions, suicides, loss of wages, incapacity for work, and inability to meet the cost of hospital care or treatment. How can these results be combated? Social agencies must co-operate in furthering attempts at social legislation and in carrying out the laws on the statute books; families must be carefully told by the social worker or doctor of the existence of syphilis in order to prevent broken homes, desertions and suicides; men who deteriorate in their work should have careful physical and mental examinations before relief is given merely to compensate inadequate wages. Often early treatment will bring back the wage-earning power; the State must see that free treatment as well as free diagnosis is its duty and its opportunity.

Massachusetts has outdistanced any of the other States in this direction. The war experience of Canada has shown that a special service for the treatment of syphilis of the nervous system is needed. Massachusetts has had this service for two years, and the Legislature has even appropriated some money for free treatment. Massachusetts has been farseeing

enough to propose another solution to the problem. It has given money to the State Department of Health for experimental work in the manufacture of salvarsan, with the excellent result that we are only awaiting a legislative grant so that free clinics and authorized doctors may be supplied with free salvarsan as with free antitoxin. The key words to the whole work with syphilitics and their families are education and co-operation.

SYPHILIS SERVICE.

Prophylaxis for the Families of Syphilitic Patients and Treatment for Syphilitic Patients.

Aim. — To discover early cases of syphilis in the mates and offspring of syphilitic patients.

To provide treatment; and thus —

To prevent the later manifestations of syphilis, both mental and physical.

Functions. — Getting out-patients to come into the house for lumbar puncture and observation, upon request of physician.

Getting patients to return to the out-patient department for second Wassermann test when the report of the first test is doubtful.

Securing money for salvarsan treatment for patients from relatives, friends, employers, lodges, social agencies, etc. (1916-17, \$3,025.04 secured in this way).

Friendly relations with patients at Wednesday and Saturday morning clinics.

Referring cases to medical agencies for treatment.

Referring cases to social agencies for complete social investigation and treatment.

Getting permission from family to operate on patients.

Bringing to the hospital for examination and blood test all the family of every patient with a positive Wassermann reaction.

Advising other members of patient's family if any sign of syphilis is found, and assisting them to have treatment if prescribed.

Arranging to have members of the family return for periodical examination if advised by physician.

Caring for families of syphilitic patients where slight service work is needed.

Disseminating knowledge about syphilis to individuals and agencies.

Co-operation with Other Agencies. — Kinds of agencies: hospitals and dispensaries; associated charities; homes; children's private agencies division of State minor wards; day nurseries; settlement houses; church visitors; school teachers; probation officers; police women and doctors.

Types of Co-operation. — Arranging for treatment of patients in whom other agencies are interested.

Arranging for Wassermann of patients in whom other agencies are interested.

Conferences with agencies on problem cases.

Money contributions for treatment from other agencies.

Sending patients to other agencies for treatment.

Getting histories or reports from other agencies, saving a duplication.

Asking interested agencies to send in patient or family as desired by physicians.

Research. — Relative severity of the familial effects of general paresis, tabes and cerebrospinal syphilis and syphilis plus some other disorder.

Mental tests on children of syphilitics, with emphasis on the type of parental syphilis.

Wassermann test and treatment of children of syphilitics.

Syphilitic children without physical stigmata.

Economic status of committed patients and their families.

Cost of treatment of committed patients.

Comparative number of men and women paretics with infected spouses.

Percentage of prostitutes among infected single women.

Comparative results of Wassermann findings of two laboratories.

Out-patient Department, Oct. 1, 1916–Sept. 30, 1917.

Persons who reported (including relatives of original patients),	448
New,	387
Adults,	248
Girls under twelve,	63
Boys under fourteen,	76
First time within the year,	61
Adults,	49
Girls under twelve,	7
Boys under fourteen,	5
Patients (original),	179
Results of Wassermann: —	
Wassermann positive,	87
First time within the year,	36
New,	51
Wassermann doubtful or negative under observation,	92
First time within the year,	9
New,	83
Lumbar puncture done,	37
Committed,	35
Died,	13
Moved away,	19
Refused re-examination,	14
Previously under treatment elsewhere,	18
Referred elsewhere for treatment,	33
Treatments (including relatives): —	
Under treatment at Psychopathic Hospital,	83
New,	43
Transferred from house,	30
First time within the year,	10
Number of treatments given to 83 patients,	1,132
Visits made by 448 persons (including relatives),	1,879

House, Oct. 1, 1916-Sept. 30, 1917.

Number of patients,		294
New,	279	
Adults,	276	
Girls under twelve,	2	
Boys under fourteen,	1	
First time within the year,	15	
Adults,	15	
Girls under twelve,	—	
Boys under fourteen,	—	
Results of Wassermann:—		
Wassermann positive,		252
First time within the year,	8	
New,	244	
Wassermann doubtful or negative under observation,		64
First time within the year,	1	
New,	63	
Lumbar puncture positive or doubtful under observation,		194
First time within the year,	2	
New,	192	
Disposition:—		
Committed,		139
Discharged against advice,		13
Died,		20
Discharged to out-patient department,		92
Discharged elsewhere,		30
Treatments:—		
Under treatment at Psychopathic Hospital,		74
Old,	102	
New,	65	
Transferred from out-patient department,	13	
First time within the year,	9	
Referred elsewhere for treatment,		36
Given 74 patients,		674

Family Prophylaxis, Oct. 1, 1916-Sept. 30, 1917.

Families:—		
New families dealt with,		171
House patients,	139	
Out-patients,	32	
New families who reported,		¹ 127
House patients,	106	
Out-patients,	21	
Entire families who reported,		² 84
Families unable to report (not counted in families dealt with),		32
Relatives (of original patients, not included above):—		
Examination desired,		369
Examined,		³ 226
Came but not examined (special reason),		⁴ 43
Unable to report,		45
Refused examination,		23
Refused treatment,		6
Wassermann positive,		⁵ 47
Wassermann doubtful or negative under observation,		28

¹ Or 75.4 per cent.³ Or 61 per cent.⁵ Or 20.7 per cent.² Or 49.1 per cent.⁴ Or 11.6 per cent.

Relatives — *Con.*

Discharged,	167
Treated at Psychopathic Hospital,	11
Referred elsewhere for treatment,	28

Cost of Treatment, Oct. 1, 1916–Sept. 30, 1917.

Collected from treatment (house and out-patient department),	\$6,495 19
Contributions (social service department),	\$217 25
Payments by patients,	3,544 44
Payments by State hospitals,	1,596 20
Payments by other agencies,	91 60
Payments by Massachusetts Commission on Mental Diseases,	1,045 70

Technical Work.

Telephones,	263
Letters,	1,374
Interviews,	162
Visits,	281

V. GENERAL AND MEDICAL EDUCATIONAL ACTIVITIES (CONFERENCES, MEDICAL CLINICS, SOCIAL CLINICS).

An increasing stream of visitors representing the public institutional systems of other States and even of other countries has been noted. The National Committee for Mental Hygiene has sent numerous persons to the Psychopathic Hospital seeking therein a model for institutions at home. On a trip to California, to give a lecture on the general topic before the California Academy of Medicine, the director gave addresses and talks on the general topic of mental hygiene, with especial application to the Psychopathic Hospital and its work, over ten in number, in different places, including New York, Chicago, Denver, San Francisco and Vancouver. There is no doubt that but for the war the Psychopathic Hospital program for the country at large would now be in a flourishing state, both on account of its natural worth and on account of its being forwarded by national organizations.

The institution has been chosen as one of six for special instruction in military psychiatry, and a list of the medical officers sent for these courses is prefixed to this report. Many of these men have not had intensive work in psychiatry before being deputed to these institutions, and some of them surviving the war will beyond question remain in psychiatry, taking places in institutions, founding out-patient departments, and

in other ways spreading the work. With the adherence of the trustees, the director has given a great deal of his time to the matter of military instruction of these men deputed by the Surgeon-General.

Another way of estimating the effect of the Psychopathic Hospital upon the national field is to consider how many of its graduates are engaged in allied branches of service in other parts of the country. A list of alumni is given in Section VII. The tentative definition of alumnus of the Psychopathic Hospital is based upon six months' full time work at the hospital. But although the spread of our officers from Maine to California is in one sense a subject for congratulation, in another sense it means that no sufficient salaries have been forthcoming for many of these men at home. It would doubtless have been better for the Psychopathic Hospital and the State institutions of Massachusetts to have kept many of these men and women by offering them reasonable increases of salary during the past five years. There is a certain inelasticity about our State system which seems to make it impossible to hold these officers. There is only the brief period between the voting of the annual budget by the Legislature in April or May and the expiration of the financial year in which to provide increases of salary, even if sufficiently large appropriations are voted. In certain instances the committees have granted for the budget year in question only that fraction of the appropriation which could be spent between the voting period and the expiration of the financial year. The Psychopathic Hospital felt the effect of this policy to a profound degree during the past year.

Aside from this fundamental question of an effective budgetary system, the standards of salary are in the opinion of the director too low to permit keeping good officers for periods of several years. Now the general effect of our activities cannot be gained unless policies lasting over twelve months can be planned and executed. The shorthandedness of the State institutions as a group has also interfered with the Psychopathic Hospital's effect in two ways, — first, in that the institutions have not been able to send their officers to the Psychopathic Hospital for training, and secondly, the institutions have not been able to take Psychopathic Hospital graduates upon their

staffs to any such extent as in the past. Accordingly the Psychopathic Hospital may be said to have more national influence than it has local influence, — a situation to be deplored and in the long run intolerable.

The same habit of managing the Psychopathic Hospital along the lines of the general hospital has been maintained as before, and the general practitioners of the community who wish to learn psychiatry have been freely admitted to the staff rounds and the staff meetings by special permission of the director. Likewise social workers, vouched for by competent persons, are admitted to the meetings. There are a few persons in the community, some of them connected with charitable institutions, who still feel that insanity and mental disease in general is something to be ashamed of, something to be hidden and something not to be dealt with publicly. There has been no publicity of misfortune in the Psychopathic Hospital's work. An attitude to mental disease as free as that to disease in general has been maintained. Cases of the group above described as that of individual psychiatry, where the problems are intimate and relate to the patient himself, are not made public, except occasionally by therapeutic design, when the case will benefit by exposition of his difficulties to a sympathetic group. Medicolegal cases in particular are examined frequently with the exclusion of all lay members of the staff, except a stenographer, and numerous reports are of course made upon cases that never come into the view of a group of persons at all. On the whole, a similar attitude to the publicity of disease conditions is maintained as in the social agencies at large. There is no doubt that an occasional mistake is made in handling 3,500 doubtful or difficult cases of the Psychopathic Hospital type by one or other of the physicians or social workers. In a general way, however, the establishment of an administrative service, responsible for external relations of the patients, has proved an effective safeguard against difficulties of this sort. Of course the Psychopathic Hospital diagnoses, and hence its recommendations for community or custodial disposition, are not always agreed to by social agencies, which have had, in fact, a tendency to send their difficult wards from physician to physician and from agency to agency, with the endeavor to secure a

positive decision that the case needs public internment in some custodial institution. The fact that many of the feeble-minded are not custodial cases, and ought not to be custodial cases, is a fact hard to drive into the heads of some bureaucratic institutions. Luckily the advent into our community of Dr. William Healy, on the Judge Baker Foundation, will serve an important purpose in proving the existence of numerous cases in which special handling in the community will obviate the necessity of considering custodial care, especially in the most difficult group to handle, namely, the delinquents.

As in former years, the same numerous exercises for visiting medical and social associations have been carried out, and the same medical clinics for medical students, chiefly the Harvard and Tufts students, have been given, always under the control of the officers of the institution and under suitable conditions. The graduates of Harvard and Tufts Medical Schools of recent years are already beginning to show an increasing interest in psychiatry, and doubtless in future years the commitment blanks will exhibit their added knowledge in the same satisfactory way as reported by Prof. A. M. Barrett from the University of Michigan clinic.

We shall undoubtedly be able to make it possible for Harvard and Tufts graduates to attain, in their sympathy with and understanding of these cases, the same eminence as the graduates of the University of Michigan or of Johns Hopkins Medical School.

It is also important to secure the attention of college students before they go into medicine; in fact, by proper stimulation of interest in these matters it will doubtless be possible to cause some students to go into medicine with a view to psychiatry, when otherwise they would not have gone into medicine at all. Some instances of this have become known to the director in connection with his small course in psychopathology given to students of Harvard College.

Psychologists are among the most frequent visitors to our clinics and the standards set by Prof. R. M. Yerkes, especially in his "Point Scale," the first monograph published from the Psychopathic Hospital, we have tried to maintain since his election to the professorship of psychology at the University of Minnesota, and his going into war work as a major in the

Sanitary Corps. It may be possible along these lines still further to add to the effect of the Psychopathic Hospital upon the community. Nothing is more certain than that the Binet tests and other similar tests have come to stay.

VI. LECTURES AND PUBLICATIONS.

Lectures and clinics have been given at the hospital during the year, as follows: —

A course of lectures and clinics in mental hygiene for social workers was given during December, January, February and March; the lecture dates and subjects were as follows: —

December 5. Alcoholism, by Dr. A. W. Stearns.

December 12. Hysteria, by Dr. C. Edouard Sandoz.

December 19. Neurasthenia, by Dr. Donald Gregg.

January 4. The Main Groups of Defective Delinquents, by Dr. E. E. Southard.

January 9. Some Practical Points in the Relation of Social Workers to State Institutions, by Dr. E. H. Cohoon.

January 16. Mental Hygiene and Social Service, by Dr. E. E. Southard.

The clinics in the course were given on Tuesdays through February and March.

Four clinics for naval student medical officers were arranged for Fridays, — June 22 and 29, July 6 and 13.

On August 16 a brief informal talk was given by Dr. William Boyd of Winnipeg, on conditions observed by him at the front and elsewhere in the war zone.

A clinic was given on November 10 for students of Boston University Medical School, numbering about twelve, under Dr. N. Emmons Paine.

List of Contributions of the Massachusetts Commission on Mental Diseases from the Psychopathic Hospital, 1917.

1917.1. R. M. Yerkes and C. S. Rossy. A Point Scale for the Measurement of Intelligence in Adolescent and Adult Individuals. Boston Medical and Surgical Journal, Vol. CLXXVI., No. 16, April 19, 1917, pp. 564-573.

1917.2. Sidney L. Pressey. Distinctive Features in Psychological Test Measurements made upon Dementia Præcox and Chronic Alcoholic Patients. Journal of Abnormal Psychology, Vol. XII., No. 2, June, 1917, pp. 130-139.

- 1917.3. Robert M. Yerkes. How may we discover the Children who need Special Care? *Mental Hygiene*, Vol. 1, No. 2, April, 1917, pp. 252-259.
- 1917.4. Hardwick, Rose S. The Weighting of Point Scale Tests. *Journal of Educational Psychology*, Vol. VIII., No. 7, September, 1917, pp. 416-424.
- 1917.5. H. C. Solomon. How shall Latent Syphilis be treated? *Interstate Medical Journal*, Vol. XXIII., No. 8, 1916.
- 1917.6. Josephine N. Curtis. Tactual Discrimination and Susceptibility to the Müller-Lyer Illusion, tested by the Method of Single Stimulation. Titchener Commemorative Volume, "Studies in Psychology," 1917.
- 1917.7. E. E. Southard. Alienists and Psychiatrists: Notes on Divisions and Nomenclature for Mental Hygiene. *Massachusetts Commission on Mental Diseases Bulletin*, Vol. I., Nos. 3 and 4.
- 1917.8. A. Warren Stearns. Defectives in our Prisons. *Boston Medical and Surgical Journal*, Vol. CLXXVI., No. 23, June 7, 1917, pp. 801-803.
- 1917.9. A. Warren Stearns. Social Problems of the Feeble-minded. *Journal of the Arkansas Medical Society*, May, 1917.
- 1917.10. H. C. Solomon. The Behavior of the Wassermann Reaction in Cases receiving Mixed Treatment. *Medicine and Surgery*, May, 1917.
- 1917.11. H. C. Solomon. Bruck's Sero-chemical Test for Syphilis: A Report of 400 Cases compared with the Wassermann Reaction. *Boston Medical and Surgical Journal*, Vol. CLXXVII., No. 10, Sept. 6, 1917, pp. 321-324.
- 1917.12. E. E. Southard. The Desirability of Medical Wardens for Prisons. *Transactions National Conference of Charities and Corrections*, 1917.
- 1917.13. E. E. Southard. Zones of Community Effort in Mental Hygiene. *Transactions National Conference of Charities and Corrections*, 1917.
- 1917.14. M. C. Jarrett. The Psychopathic Employee: A Problem of Industry. *Medicine and Surgery*, September, 1917.
- 1917.15. C. E. Smith and Lawson G. Lowrey. On the Use of the Emanuel-Cutting Mastiche Test in examining Spinal Fluid from Psychopathic Subjects. *Boston Medical and Surgical Journal*, Vol. CLXXVII., No. 16, Oct. 18, 1917, pp. 557-559.
- 1917.16. E. E. Southard. A Key to the Practical Grouping of Mental Diseases. *Journal of Nervous and Mental Disease*, Vol. XLVII., No. 1, January, 1918.
- 1917.17. M. C. Jarrett. Social Work as War Service. *Bulletin of Association of Collegiate Alumni*, October, 1917.
- 1917.18. M. H. and H. C. Solomon. The Family of the Neurosyphilitic. *Transactions of National Conference of Charities and Corrections*, 1917.

- 1917.19. A. Warren Stearns. The Value of Out-patient Work Among the Insane. Read at American Medico-Psychological Association, New York, May, 1917.
- 1917.20. E. E. Southard. Demonstration of Brains of Criminals with Special Relation to Mental Disease and Defect. Transactions of American Prison Association, 1916.
- 1917.21. E. E. Southard. On the Focality of Microscopic Brain Lesions found in Dementia Præcox. Transactions of Association of American Physicians, 1917.

VII. ALUMNI.¹

NAME.	Position.	Period of Service.	Present Position.
E. E. Southard, M.D.,	Director,	May 1, 1912,	On service.
Arthur P. Noyes, M.D.,	Administrator,	April 1, 1917,	On service.
Lawson G. Lowrey, M.D.,	Chief of staff,	May 29, 1917,	On service.
Clifford G. Rounsefell, M.D.,	Executive assistant,	May 15, 1917,	On service.
Lillian MacPhee, M.D.,	Senior assistant physician,	May 15, 1917,	On service.
A. Myerson, M.D.,	Out-patient physician,	Oct. 1, 1912-Oct. 1, 1913; Nov. 1, 1917,	On service.
Chas. E. Sandoz, M.D.,	Assistant physician,	April 11, 1916,	Out-patient department.
Herman M. Adler, M.D.,	Chief of staff,	June 1, 1912-Sept. 19, 1916,	State Criminologist, Illinois, and director of Juvenile Psychopathic Institute, Chicago, Ill.
S. E. Vosburgh, M.D.,	Executive assistant,	June 1-Dec. 1, 1912,	Assistant superintendent, Maine State Hospital, Augusta, Me.
V. V. Anderson, M.D.,	Out-patient physician,	Oct. 1, 1912-Oct. 1, 1913,	Medical probation officer, municipal court, Boston, Mass.
Geo. E. Eversole, M.D.,	Interne and assistant physician,	August, 1912-March, 1914,	In charge of special mental patient.
W. P. Lucas, M.D.,	Chief of out-patient staff,	Oct. 1, 1912-June 21, 1913,	Professor of pediatrics, University of California.
Thomas H. Haines, M.D.,	Assistant physician,	June 16, 1913-Sept. 1, 1914,	Medical director, Juvenile Research Bureau, Columbus, Ohio.
Frankwood E. Williams, M.D.,	Assistant physician,	June 16, 1913-May 12, 1914,	Associate medical director, National Committee for Mental Hygiene.
Robert M. Yerkes, Ph.D.,	Psychologist,	Mar. 13, 1913-Aug. 31, 1914,	Professor-elect, psychology, University of Minnesota.
James F. McFadden, M.D.,	Interne and assistant physician,	June 23, 1913-Apr. 15, 1915,	Lieutenant, Medical Reserve Corps, U. S. A.
Harry C. Solomon, M.D.,	Interne and assistant physician,	Sept. 1, 1913-Nov. 15, 1915,	Special investigator, brain syphilis, Massachusetts Commission on Mental Diseases.

Harriet M. Gervais, M.D.,	Interne and assistant physician,	Aug. 15, 1913–July 14, 1916,	Medical inspector, ungraded schools, New York city.
Geneva Tryon, M.D.,	Assistant physician,	Mar. 15–Sept. 15, 1914,	Assistant physician, Pontiac State Hospital, Pontiac, Mich.
Anna C. Wellington, M.D.,	Executive assistant,	May 1, 1914–May 15, 1917,	War work.
Wm. A. MacIntyre, M.D.,	Interne and assistant physician,	May 19, 1914–Oct. 1, 1915,	Assistant physician, Grafton State Hospital, Worcester, Mass.
Cornelia B. J. Schorer, M.D.,	Interne and junior assistant physician,	July 5, 1914–July 15, 1916,	Resident physician, Psychopathic Hospital, Bedford Hills Reformatory, New York.
Edward T. Gibson, M.D.,	Interne and assistant physician,	Dec. 1, 1914–July 18, 1916,	Clinical director and pathologist, Connecticut State Hospital, Middletown, Conn.
Geo. E. McPherson, M.D.,	Junior assistant and assistant physician,	June 30, 1915–May 24, 1916,	Assistant superintendent, Medfield State Hospital, Harding, Mass.
Gertrude G. Fisher, M.D.,	Interne and junior assistant physician,	Aug. 1, 1915–July 31, 1916,	Assistant to Dr. Flexner, Rockefeller Institute, New York.
Elisha H. Cohoon, M.D.,	Administrator,	Aug. 21, 1915–April 1, 1917,	Superintendent, Medfield State Hospital, Harding, Mass.
A. W. Stearns, M.D.,	Out-patient physician,	Nov. 15, 1915–Aug. 20, 1917,	Lieutenant, Navy Medical Corps, San Francisco, Cal.
James T. Adams, M.D.,	Assistant physician,	Dec. 10, 1915–May 19, 1917,	Assistant physician, Grafton State Hospital, Worcester, Mass.
Heman L. Chase, M.D.,	State Board of Insanity training course,	Jan. 20–July 31, 1916,	Resident physician, Herbert Hall Hospital, Worcester, Mass.
Francis J. O'Brien,	Assistant in psychology,	July 20, 1917–Sept. 1, 1917,	Psychologist, Concord Reformatory, Concord, Mass.
Eleanor M. Slater, M.D.,	Graduate interne,	Sept. 1, 1916–Mar. 30, 1917,	Assistant physician, Rhode Island State Hospital, Howland, R. I.
Esther S. B. Woodward, M.D.,	Graduate interne,	Sept. 20, 1916–Mar. 10, 1917,	Investigator for Committee on Socially Unadjusted, Westchester County, N. Y.
Marion H. Rea, M.D.,	Assistant physician,	Nov. 1, 1916–April 30, 1917,	- - -
Cecilio S. Rossy, Ph.D.,	Assistant in psychology,	June 1, 1914–June 1, 1916,	Employment manager, labor department, Norwalk Tire and Rubber Company, Norwalk, Conn.

¹ Including medical officers connected with the hospital for six months full time or its equivalent.

VIII. ACKNOWLEDGMENTS.

I have the duty and pleasure of acknowledging numerous donations to the hospital, as follows:—

- From Mrs. Horatio Lamb, many books and other articles for the comfort and entertainment of patients.
- From Mr. Sidney L. Beals, a billiard table.
- From Dr. L. Vernon Briggs, files of medical and scientific periodicals.
- From Mrs. O. V. Howland, flowers.
- From Miss Helen Oakes, magazines.
- From Mr. Harry H. E. White, 6 volumes of Mrs. Burnett's works.
- From Mr. James Uniack, pipes and tobacco.
- From Mrs. C. W. Taintor, ice cream and fruit.
- From Miss Grow, magazines.
- From American Red Cross, sum of money for wool.
- From Mrs. C. L. Billman, flowers.
- From Mrs. Edward Burnett, clothing.
- From Mrs. John W. Carter, sums of money.
- From Mrs. Philip W. Carter, clothing.
- From Catholic Charities Bureau, sum of money for special patient.
- From Country Week, sum of money for special patient.
- From Mrs. Wm. A. Crosby, sum of money and clothing.
- From Mr. Carl P. Dennett, sum of money for special patient.
- From Mrs. Dudley B. Fay, sum of money for special patient.
- From Federated Jewish Charities, sum of money for special patient.
- From Mrs. Eugene N. Foss, sums of money for special patient.
- From Mrs. Alexander Forbes, loan of moving-picture apparatus and reels.
- From Mr. George E. Gilchrist, sum of money for graphophone.
- From Miss Dorothy Q. Hale, sum of money.
- From Miss Elizabeth P. Hamlen, graphophone and records.
- From Mrs. J. H. Harwood, go-cart.
- From Hebrew Benevolent Society, sum of money for special patient.
- From Mr. Joseph M. Herman, sum of money.
- From Miss Helen M. Hershey, clothing.
- From Mrs. Woodward Hudson, magazines.
- From Invalid Aid Society, sums of money for special patients.
- From Mrs. James T. Jones, baby carriage.
- From Kings Chapel Sunday School, sum of money for Christmas gifts.
- From Mr. Horatio A. Lamb, sum of money for salvarsan.
- From Mrs. A. F. Wadsworth, sum of money for wool.
- From Mrs. L. Vernon Briggs, sum of money for wool.
- From Mrs. Henry S. Grew, sum of money for wool.
- From Mrs. Horatio A. Lamb, sum of money for special patients; books balls, wool.

From Miss Mary Lee, shoes.

From Lend-a-Hand Society, sum of money for special patient.

From Miss Mary F. Lord, graphophone and records.

From Mr. Charles B. Perkins, cigarettes for Men's Club.

From Mrs. Joseph W. Richards, sum of money for wool.

From Mrs. Charles F. Stone, sums of money for special patient.

From Mrs. E. W. Waite, clothing.

From Waitt & Bond, Inc., cigars for Men's Club and Christmas tree.

From Frederick E. Weber Charities Corporation, fund for incidental expenses in care of patients.

For the work of the committee on employment and after-care, the following have contributed: —

Mrs. Shepherd Brooks.

Mrs. Robert L. DeNormandie.

Miss M. C. Jackson.

Mrs. Charles E. Mason.

Miss Frances Morse.

Mrs. John C. Phillips.

For the salary of a special worker for care and prophylaxis for syphilitic patients and their families, the following persons have contributed: —

Mrs. L. Vernon Briggs.

Mrs. Mary Morton Kehew.

Mr. Horatio A. Lamb.

For the salaries for special workers in the social service department, contributions have been received from the following: —

A. W. Blake fund.

Mrs. Shepherd Brooks.

Mr. Richard B. Carter.

Mrs. Mary Morton Kehew.

Mr. Louis E. Kirstein.

Mr. and Mrs. A. Lawrence Lowell.

Miss Eleanor S. Parker.

Miss Mary Morton.

Mrs. Edward C. Streeter.

Miss Alice Tapley.

Mrs. Alexander F. Wadsworth.

In addition to the above donations, sums of money for various purposes have been donated by a number of anonymous donors.

The Permanent Charity Fund, Incorporated, has contributed \$625, the first quarterly payment of an appropriation of \$2,500, to pay the salaries of special social workers for the care and study of patients having difficulties in employment, and for care and prophylaxis for syphilitic patients and their families.

Entertainments have been given as follows: —

- A pathoscope has been loaned by Mrs. Alexander Forbes of Milton.
Nov. 9, 1916. — Phonograph program by Robert Ruffin.
Nov. 23, 1916. — Play by the young people of the Winkley Guild.
Dec. 7, 1916. — Musicales by members of the De Normandie Guild.
Dec. 23, 1917. — Christmas tree and entertainment by the Misses Prescott and Kinden, and Mr. Holmes.
Jan. 18, 1917. — Concert by Mrs. Bowen, Miss Whittemore and Mr. Weston of the Wollaston Young People's Religious Union.
Feb. 1, 1917. — Concert by Katherine Stone, Marjorie Holmes and Clarence Howard of the Newton Young People's Religious Union.
Feb. 15, 1917. — Recital by Miss Keefe of the Theodore Weld Union, assisted by Miss Lillian Lyons, Josephine Hamlin and Olive Wamburgh, all of Hyde Park.
March 1, 1917. — Entertainment by the young people of Theodore Parker Church, Roxbury.
March 16, 1917. — Musicales by Mr. E. J. Bromberg and family.
March 29, 1917. — Entertainment by the young people of the Barnard Memorial Church.
April 12, 1917. — Songs and dances by the young people of the First Parish Church, Meeting House Hill.
April 26, 1917. — Songs by Miss Stearns of the Channing Memorial Church, Dorchester. Violin solo by Miss Elliott of the Young People's Church Union, accompanied by Miss Cafferty.
May 10, 1917. — Entertainment by the Misses Holmes, Holiday and Sanderson, and Mr. Vogel of the Church of the Disciples.

With hearty appreciation of the co-operation of my authorities and colleagues.

Respectfully,

E. E. SOUTHARD, M.D.

REPORT OF THE SOCIAL SERVICE DEPARTMENT.

To the Superintendent of the Boston State Hospital.

This is the report of the work done by the social service department covering the statistical year for 1917, from Dec. 1, 1916, to Dec. 1, 1917.

There have been 829 visits made in ten months of active work.

There were 263 new patients referred to the department.

The number of old cases continued or resumed it is not possible to determine exactly from Miss Fletcher's record, but about 200 old cases have been worked on during the year.

One hundred and seventy-six patients on visit have reported, some of them willingly and with appreciation that the hospital is interested; others after being prodded by the social service department.

The work has been carried on in the same manner as formerly. It has just naturally divided itself into three large groups: —

I. The work done for patients in the hospital.

(a) To obtain histories —

From relatives who cannot visit.

From other agencies.

From neighbors, when the information received shows a disagreement.

(b) Provision for patient's family.

(c) To find employment for those without relatives and friends.

(d) To look after property or personal effects of patients.

(e) Investigation of home, previous to discharge.

(f) To locate friends of patients no longer visited.

(g) To secure return to families of old senile or harmless chronic patients.

II. Work done for patients in the after-care department.

(a) Supervision during trial visit.

(b) Interesting other agencies when help financially or otherwise is needed.

(c) To find employment if the patient or family fails to do so.

III. The work done for patients boarded out in family care.

- (a) Supervision while boarding.
- (b) Investigation of new boarding places.
- (c) Care of patient's clothes.
- (d) Returning patients to hospital when necessary.

The extension of the trial visit of patients to one year (formerly six months) is going to help materially in this department.

The patients in the family-care department are fewer at the end of the year than at the beginning. The great reason is the continued high cost of living, which makes it impossible for people in and near the city to board patients for the inadequate allowance made.

The usual course of lectures to the nurses was not given this year because of Miss Fletcher's resignation.

Splendid co-operation has been given by the many outside agencies called upon. The year closes with the work well in hand. A student volunteer has been added who has entered upon the new work with enthusiasm, and promises much in the after-care department of our work. The department has shown progress, and many of the results have been most gratifying.

Respectfully submitted,

MARIE L. DONOHOE,
Social Worker.

Nov. 30, 1917.

SUPERINTENDENT OF NURSES' REPORT.

To the Superintendent of the Boston State Hospital.

I herewith submit the seventeenth annual report of the training school for nurses.

Graduating Class of 1917.

Isola McSpirlin Acker.	May McDonald.
Jeanie Porteous Allan.	Carol Grant Merrill.
Minnie May Barkhouse.	Jennie Morrison.
Eva Hazard Beynon.	Katherine Carson Murray.
Mary Breen.	Mary Jane Nee.
Margaret Mabel Dinan.	Catherine Pettipas.
Marion Clarke Donovan.	Bessie Rapier.
Mary Edith Geary.	Evelyn Adele Ross.
Ina Belle MacKay.	Hazel Dorothy Vye.
Margaret McIver.	Mary Louise Weights.
Trixie Nina McAuley.	

Nursing Staff.

	Men.	Women.	Totals.
Superintendent of nurses,	-	1	1
Assistant superintendents of nurses (one graduate of this school; one graduate of another school).	-	2	2
Supervisors, day: —			
Graduates of this school,	-	4	4
Graduates of other schools,	1	1	2
Not graduates,	2	-	2
Supervisors, night: —			
Graduates of this school,	-	2	2
Not a graduate,	1	-	1
Head nurses: —			
Graduates of this school,	-	10	10
Graduates of other schools,	-	8	8
Seniors,	-	8	8
Attendants,	13	1	14

Nursing Staff — Concluded.

	Men.	Women.	Totals.
Day nurses: —			
Graduates of this school,	—	—	—
Graduates of other schools,	—	1	1
Pupils,	2	35	37
Attendants,	36	25	61
Probationers,	—	8	8
Affiliated,	—	10	10
Night nurses: —			
Pupils,	—	18	18
Attendants,	17	10	27
Probationers,	—	2	2
Totals,	72	146	218

NOTE. — Twenty-two women nurses and attendants are employed in wards occupied by male patients.

Accepted during the Year.

	Men.	Women.
Probationers,	2	74
Attendants,	208	43
Graduates of this school re-employed,	—	3
Graduates of other schools re-employed,	—	9

Left during the Year.

	Men.	Women.
Graduates of this school,	—	17
Graduates of other schools,	—	8
Pupils,	2	15
Attendants,	142	10
Probationers,	—	29

NOTE. — Twenty-eight probationers were dropped from the school and remained as attendants.

The school opened this year with an attendance of 75 pupils, as follows: —

	Men.	Women.
Seniors,	—	20
Intermediates,	—	16
Juniors,	—	20
Probationers,	—	19

The training school this year graduated 21 nurses, making a total of 176 graduates since it was organized.

The graduating exercises took place on the evening of October 22. The program, in which members of the class participated, as last year, was an enjoyable one. Miss Mary Beard, director of the District Nursing Association, gave the address to the graduates.

The prize of \$25, which was to be given annually by Mrs. Hopkins, a member of the Board of Trustees, was, through some misunderstanding, omitted this year.

During the year we have had only three affiliated nurses from the Boston City Hospital, and they are with us at the present time.

I wish to thank the members of the staff for their cordial assistance in the work of the training school.

Respectfully submitted,

J. ROBERTSON, R.N.,

Superintendent of Nurses.

Nov. 30, 1917.

VALUATION.

Nov. 30, 1917.

REAL ESTATE.

Land (235 acres),	\$981,729 28
Buildings,	1,951,910 74
	<hr/>
	\$2,933,640 02

PERSONAL PROPERTY.

Travel, etc.,	\$4,990 36
Food,	10,133 71
Clothing,	15,304 15
Furnishings,	80,914 22
Heat, light and power,	674 75
Repairs and improvements,	5,545 31
Farm, stable and grounds,	17,390 30
Medical and general care,	15,330 33
Industries,	3,943 16
	<hr/>
	\$154,226 29

SUMMARY.

Real estate,	\$2,933,640 02
Personal property,	154,226 29
	<hr/>
	\$3,087,866 31

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1917: —

CASH ACCOUNT.	
Balance Dec. 1, 1916,	\$13,515 99
<i>Receipts.</i>	
<i>Institution Receipts.</i>	
Board of inmates: —	
Private,	\$24,848 21
Reimbursements, insane,	22,930 72
	<u>\$47,778 93</u>
Sales: —	
Travel, transportation and office expenses,	\$10 60
Food,	1,718 25
Clothing and materials,	104 54
Furnishings and household supplies,	148 28
Medical and general care,	3 15
Heat, light and power,	37 12
Farm and stable: —	
Pigs and hogs,	\$460 58
Sundries,	796 03
	<u>1,256 61</u>
Repairs, ordinary,	16 85
	<u>3,295 40</u>
Miscellaneous receipts: —	
Interest on bank balances,	\$402 06
Sundries,	222 32
	<u>624 38</u>
	51,698 71
Sales account industries fund,	314 76
<i>Receipts from Treasury of Commonwealth.</i>	
Maintenance appropriations: —	
Balance of 1916,	\$8,200 13
Advance money (amount on hand November 30),	40,000 00
Approved schedules of 1917,	\$533,636 47
Less returned,	14 08
	<u>533,622 39</u>
	581,822 52
Industries fund,	213 88
Total,	<u>\$647,565 86</u>

Payments.

To treasury of Commonwealth, institution receipts,	\$51,698 71
Industries fund,	314 76

Maintenance appropriations: —

Balance November schedule, 1916,	\$21,716 12
Eleven months' schedules, 1917,	533,622 39
November advances,	17,289 93
	<hr/>
	572,628 44

Industries fund: —

Approved schedules,	\$213 88
November advances,	47 67
	<hr/>
	261 55

Balance, Nov. 30, 1917: —

In bank,	\$20,743 53
In office,	1,918 87
	<hr/>
	22,662 40

Total,	\$647,565 86
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MAINTENANCE.

Appropriation, current year,	\$578,854 78
Balance from previous year, brought forward,	164 06

Total,	\$579,018 84
Expenses (as analyzed below),	578,793 86

Balance reverting to treasury of Commonwealth,	\$224 98
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Analysis of Expenses.

Salaries, wages: —

Henry P. Frost, M.D., superintendent,	\$1,913 98
E. Corser Noble, M.D., acting superintendent,	1,200 00
General administration,	74,224 92
Medical service,	35,946 31
Ward service (male),	37,134 51
Ward service (female),	62,333 61
Repairs,	9,725 64
Farm and stable,	9,282 89
Grounds,	1,588 96
	<hr/>
	\$233,350 82

Religious instruction: —

Catholic,	\$912 00
Jewish,	290 00
Protestant,	268 00
	<hr/>
	1,470 00

Travel, transportation and office expenses: —

Advertising,	\$6 75
Automobiles,	3,745 00
Automobile repairs and supplies,	3,007 65
	<hr/>

Amounts carried forward,	\$6,759 40	\$234,820 82
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Amounts brought forward, \$6,759 40 \$234,820 82

Travel, transportation and office expenses — *Con.*

Postage,	1,255 66
Printing and binding,	1,606 49
Printing annual report,	318 91
Stationery and office supplies,	2,031 71
Telephone and telegraph,	2,403 60
Travel,	1,078 63
Freight,	106 32

15,560 72

Food: —

Butter,	\$14,580 16
Butterine,	5,556 73
Beans,	3,588 04
Bread, crackers, etc.,	629 21
Canned soups,	2 28
Cereals, rice, meal, etc.,	2,772 53
Cheese,	1,777 67
Eggs,	15,123 64
Flour,	22,984 72
Fish (fresh, cured and canned),	8,238 46
Fruit (fresh),	3,112 64
Fruit (dried and preserved),	3,052 97
Lard and substitutes,	1,054 10
Macaroni and spaghetti,	114 22
Meats,	46,124 78
Milk (fresh and substitutes),	26,596 78
Molasses and syrups,	324 16
Peanut butter, pie filling, etc.,	531 10
Potatoes,	7,411 30
Seasonings and condiments,	1,410 32
Sugar,	8,782 63
Tea, coffee, cocoa, etc.,	3,863 42
Vegetables (fresh),	412 48
Vegetables (canned and dried),	1,175 53
Yeast, baking powder, etc.,	752 27
Freight,	50 58

180,022 72

Clothing and materials: —

Boots, shoes and rubbers,	\$2,623 07
Clothing (outer),	5,642 05
Clothing (under),	1,905 02
Dry goods for clothing,	3,214 07
Hats and caps,	37 50
Leather and shoe findings,	948 84
Machinery for manufacturing,	266 28
Socks and smallwares,	1,669 94
Freight,	6 98
Materials for manufacturing,	139 37

16,453 12

Furnishings and household supplies: —

Beds, bedding, etc.,	\$8,141 79
Carpets, rugs, etc.,	498 96

Amounts carried forward, \$8,640 75 \$446,857 38

<i>Amounts brought forward,</i>		\$8,640 75	\$446,857 38
Furnishings and household supplies — <i>Con.</i>			
Crockery, glassware, cutlery, etc.,		2,454 66	
Dry goods and smallwares,		72 72	
Fire hose and extinguishers,		241 98	
Furniture, upholstery, etc.,		1,572 89	
Kitchen and household wares,		3,082 48	
Laundry supplies and materials,		3,212 65	
Lavatory supplies and disinfectants,		1,628 96	
Machinery for manufacturing,		88 59	
Table linen, paper napkins, towels, etc.,		2,235 75	
Freight,		81 84	
Electric lamps,		819 66	
Materials for manufacturing,		632 70	
			24,765 63
Medical and general care: —			
Books, periodicals, etc.,		\$378 86	
Entertainments, games, etc.,		1,067 10	
Funeral expenses,		157 80	
Gratuities,		224 20	
Ice and refrigeration,		212 43	
Laboratory supplies, apparatus and X-Ray,		1,385 04	
Medicines (supplies and apparatus),		5,017 39	
Medical attendance (extra),		1,153 35	
Patients boarded out,		988 88	
Return of runaways,		49 32	
School books and supplies,		130 73	
Tobacco, pipes, matches,		572 78	
Water,		4,967 20	
Freight,		26 39	
Rent,		37 50	
			16,368 97
Heat, light and power: —			
Coal,		\$65,554 04	
Freight on coal and other expenses,		1,363 09	
Gas,		680 16	
Oil,		463 79	
Operating supplies for boilers and engines,		162 26	
Sundries,		47 00	
			68,270 34
Farm and stable: —			
Blacksmithing and supplies,		\$753 58	
Carriages, wagons and repairs,		418 99	
Fencing materials,		47 04	
Fertilizers,		543 35	
Grain, etc.,		4,132 72	
Harnesses and repairs,		339 97	
Horses and hire,		635 50	
Spraying materials,		125 68	
Stable and barn supplies,		20 81	
Tools, implements, machines, etc.,		721 44	
<i>Amounts carried forward,</i>		\$7,739 08	\$556,262 3

<i>Amounts brought forward,</i>		\$7,739 08	\$556,262 32
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Farm and stable — Con.

Trees, vines, seeds, etc.,		1,054 23	
Veterinary services, supplies, etc.,		423 66	
Freight,		3 50	
		<hr/>	9,220 47

Grounds: —

Road work and materials,		\$73 44	
Tools, implements, machines, etc.,		116 11	
Trees, vines, shrubs, seeds, etc.,		112 76	
Freight,		3 56	
Spraying materials,		156 55	
Tile, pipe, etc.,		68 43	
		<hr/>	530 85

Repairs, ordinary: —

Brick,		\$287 79	
Cement, lime, crushed stone, etc.,		545 78	
Electrical work and supplies,		983 27	
Hardware, iron, steel, etc.,		1,233 93	
Lumber, etc. (including finished products),		1,337 71	
Paint, oil, glass, etc.,		2,898 62	
Plumbing and supplies,		930 73	
Roofing and materials,		8 82	
Steam fittings and supplies,		1,062 63	
Tents, awnings, etc.,		28 66	
Tools, machines, etc.,		825 61	
Boilers, repairs,		892 90	
Dynamos, repairs,		313 53	
Engines, repairs,		333 84	
Freight,		40 80	
Guards,		1,055 60	
		<hr/>	12,780 22

Total expenses for maintenance,			\$578,793 86
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SPECIAL APPROPRIATIONS.

Balance Dec. 1, 1916,		\$307 06
Expended during the year (see statement annexed),		—
		<hr/>
Balance Nov. 30, 1917,		\$307 06

RESOURCES AND LIABILITIES.*Resources.*

Cash on hand,		\$22,662 40
November cash vouchers (paid from advance money): —		
Account of maintenance,	\$17,289 93	
Account of industries,	47 67	
	<hr/>	17,337 60
Due from treasury of Commonwealth from available appropriation account November, 1917, schedule,		5,171 47
		<hr/>
		\$45,171 47

Liabilities.

Schedule of November bills,	\$45,171 47
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PER CAPITA.

During the year the average number of inmates has been 1,611.36.

Total cost for maintenance, \$578,793.86.

Equal to a weekly per capita cost of \$6.9076.

Receipt from sales, \$3,295.40.

Equal to a weekly per capita of \$0.0393.

All other institution receipts, \$48,403.31.

Equal to a weekly per capita of \$0.57767.

INDUSTRIES FUND.

Balance Dec. 1, 1916,	\$105 47
Receipts credited,	314 76

\$420 23

Expenditures, approved schedules (see statement annexed),	\$261 55
Balance Nov. 30, 1917,	158 68

\$420 23

Expenditures.

Tools and machinery: —

Brushes,	\$1 03
Glue,	12
Hooks,	5 64
Needles,	4 44
Saws,	1 24
Scissors,	1 34
Shuttles,	1 95
Snaps,	42
Spools,	15

\$16 33

Materials: —

Bases,	\$0 59
Chenille,	1 64
Dyes,	1 39
Lace,	1 60
Linens,	79 54
Raffia,	11 19
Reeds,	51 67
Ribbons,	4 32
Thread,	36 08
Thrums,	3 13
Wax,	50
Yarn,	53 57

245 22

\$261 55

Special Appropriations.

OBJECT.	Act or Resolve.	Whole Amount.	Expended during Fiscal Year.	Expended to Date.	Balance at End of Year.
Butler Building addition,	Acts 1910, chap. 513	\$39,000 00	—	\$38,737 95	\$262 05 ¹
Infirmary,	Acts 1910, chap. 513	275,000 00	—	274,954 99	45 01 ¹
		\$314,000 00	—	\$313,692 94	\$307 06

¹ Reverting to treasury of the Commonwealth.

Respectfully submitted,

FRED L. BROWN,
Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

ALONZO B. COOK,
Auditor.

STATISTICAL TABLES

AS ADOPTED BY AMERICAN MEDICO-PSYCHOLOGICAL
ASSOCIATION.

PRESCRIBED BY MASSACHUSETTS COMMISSION ON MENTAL DISEASES.

TABLE 1. — *General Information.*

1. Date of opening as an institution for the insane: Dec. 11, 1839.			
2. Type of institution: State.			
3. Hospital plant: —			
Real estate, including buildings,	\$2,933,640	02	
Personal property,	154,226	29	
Total,	\$3,087,866	31	
Total acreage of hospital, 235.			
Acreage under cultivation during year, about 60.			
4. Medical service: —	Men.	Women.	Total.
Superintendent,	1	—	1
Senior assistant physicians,	2	1	3
Assistant physicians,	2	2	4
Pathologist,	—	1	1
Psychopathic department: —			
Director,	1	—	1
Administrator,	1	—	1
First assistant physician,	1	—	1
Senior assistant physicians,	2	—	2
Assistant physicians,	1	1	2
Out-patient physicians,	3	—	3
Graduate internes,	2	—	2
Internes,	9	1	10
Roentgenologist,	1	—	1
Assistant psychologist,	—	1	1
Internes in psychology,	—	3	3
Total,	26	10	36
5. Employees: —	Males.	Females.	Total.
Graduate nurses,	—	29	29
Other nurses and attendants,	87	144	231
Social workers,	—	2	2
All other employees,	89	94	183
Total,	176	269	445
6. Percentage of patients employed during year, .	Men.	Women.	Total.
	59	52	55

TABLE 2. — *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Patient Population for the Year ending Sept. 30, 1917.*

	INSANE.			VOLUNTARY SANE.			TOTAL ON BOOKS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Patients on books of institution, Sept. 30, 1916,	811	1,018	1,829	-	2	2	811	1,020	1,831
Admissions during year: —									
(a) First admissions,	920	938	1,858	5	6	11	925	944	1,869
(b) Readmissions,	204	197	401	2	2	4	206	197	403
Total admissions,	1,124	1,135	2,259	7	6	13	1,131	1,141	2,272
(c) Transfers from other institutions for insane,	4	6	10	-	-	-	4	6	10
Total received during year,	1,128	1,141	2,269	7	6	13	1,135	1,147	2,282
2. Total under treatment during year,	1,939	2,159	4,098	7	8	15	1,946	2,167	4,113
Discharged from books during year: —									
(a) As recovered,	62	57	119	-	-	-	62	57	119
(b) As improved,	206	190	396	-	-	-	206	190	396
(c) As unimproved,	416	348	764	-	-	-	416	348	764
(d) As not insane,	234	310	544	7	7	14	241	317	558
(e) Transferred to other institutions for the insane,	66	138	204	-	-	-	66	138	204
(f) Died during year,	133	144	277	-	-	-	133	144	277
Total discharged from books during year,	1,117	1,187	2,304	7	7	14	1,124	1,194	2,318
5. Patients remaining on books of institution Sept. 30, 1917,	822	972	1,794	-	1	1	822	973	1,795
<i>Supplementary Data.</i>									
6a. Average daily number of patients on books during year,	794.57	987.68	1,782.25	.33	1.33	1.66	794.90	989.01	1,783.91
6b. Average daily number of patients actually in institution during year,	717.31	891.55	1,608.86	.33	1.33	1.66	717.64	892.88	1,610.52
7a. Average daily number of patients in family care,	45	8.02	8.47	-	-	-	.45	8.02	8.47
7b. Average daily number of patients on visit and escape,	76.81	88.11	164.92	-	-	-	76.81	88.11	164.92
8. Number of voluntary patients admitted during year,	233	162	395	7	6	13	240	168	408
9. Number of temporary-care cases admitted during year,	853	906	1,759	-	-	-	853	906	1,759
10. Number of patients actually remaining in institution Sept. 30, 1917,	721	833	1,559	-	1	1	721	834	1,559
State,	684	685	1,369	-	1	1	684	686	1,370
Reimbursing,	25	95	120	-	-	-	25	95	120
Private,	12	58	70	-	-	-	12	58	70
11. Number of patients in family care Sept. 30, 1917,	-	11	11	-	-	-	-	11	11
State,	-	5	5	-	-	-	-	5	5
Private,	-	1	1	-	-	-	-	1	1
Self-supporting,	-	5	5	-	-	-	-	5	5
12. Number of different persons within the year,	1,870	2,116	3,986	7	8	15	1,875	2,124	3,999
13. Number of different persons admitted, exclusive of transfers,	1,062	1,102	2,164	7	6	13	1,067	1,108	2,175
14. Number of different persons dismissed, exclusive of transfers,	1,005	1,028	2,033	7	7	14	1,010	1,035	2,045
15. Number of non-insane patients or inmates in institution at end of institution year,	-	-	-	-	-	-	-	-	-
(c) Neurological case,	-	-	-	-	1	1	-	1	1
(d) Persons given advice or treatment in out-patient department during year,	-	-	-	-	-	-	1,098	1,451	2,549

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
United States,	515	525	1,040	262	263	525	251	255	506
Atlantic Islands,	-	1	1	-	-	-	1	1	2
Austria,	-	3	3	-	-	-	4	4	8
Belgium,	2	1	3	2	2	4	1	1	2
Canada,	78	85	163	92	94	186	103	109	212
China,	3	1	4	2	2	4	1	1	2
Cuba,	-	-	-	-	-	-	1	-	1
Denmark,	3	1	4	4	3	7	2	2	4
England,	23	21	44	30	34	64	42	31	73
Europe,	-	-	-	-	-	-	2	2	4
Finland,	-	-	-	-	-	-	2	2	4
France,	1	2	3	2	-	2	2	2	4
Germany,	-	5	5	1	-	1	5	4	9
Greece,	10	8	18	34	23	57	15	10	25
Holland,	13	5	18	11	10	21	5	5	10
Hungary,	1	-	1	2	3	5	-	-	-
India,	-	4	4	-	1	1	4	4	8
Ireland,	1	1	2	-	-	-	-	-	-
Italy,	103	135	238	215	220	435	236	243	479
Mexico,	37	44	81	36	37	73	45	45	90
Norway,	-	-	-	1	1	2	-	1	1
Philippine Islands,	2	2	4	3	1	4	3	2	5
Poland,	1	-	1	1	1	2	-	-	-
Porto Rico,	12	4	16	12	11	23	7	8	13
Portugal,	-	1	1	-	-	-	-	-	-
Roumania,	4	4	8	4	4	8	4	3	7
Russia,	1	2	3	1	1	2	1	1	2
Scotland,	55	29	84	57	56	113	41	42	83
South America,	6	10	16	16	10	26	14	14	28
Spain,	-	2	2	1	-	1	-	-	-
Switzerland,	-	2	2	1	-	1	2	1	3
Sweden,	1	2	3	1	3	4	4	3	7
Turkey in Europe,	13	11	24	18	20	38	13	14	27
U.S. Isles,	4	1	5	3	2	5	1	1	2
U.S. Isles,	1	-	1	-	-	-	-	-	-
West Indies,	4	7	11	5	4	9	8	6	14
Other countries,	15	7	22	15	14	29	10	8	18
Born at sea,	1	-	1	-	1	1	-	1	1
Total foreign born,	395	401	796	570	558	1,128	577	567	1,144
Unascertained,	10	12	22	88	99	187	110	116	226
Grand total,	920	938	1,858	920	920	1,840	938	938	1,876

TABLE 5. — *Citizenship of First Admissions.*

	Males.	Females.	Totals.
Citizens by birth,	515	526	1,041
Citizens by naturalization,	57	36	93
Aliens,	33	58	91
Unascertained,	315	318	633
Total,	920	938	1,858

TABLE 6. — *Psychoses of First Admissions.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,				6	1	7
2. Senile, total,				37	69	106
(a) Simple deterioration,	33	50	83			
(b) Presbyophrenic type,	—	—	—			
(c) Delirious and confused states,	1	—	1			
(d) Depressed and agitated states in addition to deterioration,	1	6	7			
(e) Paranoid states in addition to deterioration,	2	13	15			
3. With cerebral arteriosclerosis,				59	44	103
4. General paralysis,				130	19	149
5. With cerebral syphilis,				27	16	43
6. With Huntington's chorea,				—	2	2
7. With brain tumor,				4	5	9
8. With other brain or nervous diseases, total,				2	10	12
Cerebral embolism,	—	—	—			
Paralysis agitans,	—	—	—			
Tubercular or other forms of meningitis,	—	1	1			
Multiple sclerosis,	1	4	5			
Tabes,	—	—	—			
Acute chorea,	1	4	5			
Other conditions,	—	1	1			
9. Alcoholic, total,				143	67	210
(a) Pathological intoxication,	—	—	—			
(b) Delirium tremens,	29	10	39			
(c) Acute hallucinosis,	51	17	68			
(d) Acute paranoid state,	9	—	9			
(e) Korsakow's psychosis,	14	23	37			
(f) Chronic hallucinosis,	4	1	5			
(g) Chronic paranoid type,	10	1	11			
(h) Alcoholic deterioration,	24	15	39			
(i) Other types, acute or chronic,	2	—	2			
10. Due to drugs and other exogenous toxins, total,				1	4	5
(a) Morphine, cocaine, bromides, chloral, etc., alone or combined,	1	4	5			
(b) Metals, as lead, arsenic, etc.,	—	—	—			
(c) Gases,	—	—	—			
(d) Other exogenous toxins,	—	—	—			
11. With pellagra,				—	—	—
12. With other somatic diseases, total,				6	24	30
(a) Delirium with infectious diseases,	2	6	8			
(b) Post-infectious psychoses,	1	6	7			
(c) Exhaustion delirium,	—	6	6			
(d) Delirium of unknown origin,	1	—	1			
(e) Diseases of the ductless glands,	—	1	1			
(f) Cardiorenal disease,	—	2	2			
(g) Cancer,	—	—	—			
(h) Other diseases or conditions: —						
Aneurysm,	1	—	1			
Amyotrophic lateral sclerosis,	1	—	1			
Osteomyelitis,	—	1	1			
Pernicious anemia,	—	1	1			
Tuberculosis,	—	1	1			

TABLE 6. — *Psychoses of First Admissions* — Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
13. Manic-depressive, total,				65	94	159
(a) Manic type,	22	28	50			
(b) Depressive type,	40	57	97			
(c) Stupor,	—	—	—			
(d) Mixed type,	3	9	12			
(e) Circular type,	—	—	—			
14. Involution melancholia,				7	14	21
15. Dementia præcox, total,				164	207	371
(a) Paranoid type,	91	129	220			
(b) Katatonic type,	29	27	56			
(c) Hebephrenic type,	41	47	88			
(d) Simple type,	3	4	7			
16. Paranoia and paranoid conditions,				21	24	45
17. Psychoneuroses, total,				19	46	65
(a) Hysterical type,	2	22	24			
(b) Psychasthenic type,	4	1	5			
(c) Neurasthenic type,	13	23	36			
18. With mental deficiency,				6	4	10
19. With constitutional psychopathic inferiority,				—	2	2
20. Epileptic, total,				26	25	51
(a) Deterioration,	7	9	16			
(b) Clouded states,	17	15	32			
(c) Paranoid,	2	1	3			
21. Undiagnosed,				47	56	103
22. Not insane, total,				150	205	355
(a) Epilepsy without psychosis,	15	5	20			
(b) Alcoholism without psychosis,	18	3	21			
(c) Drug addiction without psychosis,	6	—	6			
(d) Constitutional psychopathic inferiority without psychosis,	38	69	107			
(e) Mental deficiency without psychosis,	38	99	137			
(f) Others:—						
Paralysis agitans,	1	—	1			
Chorea,	1	1	2			
Multiple sclerosis,	1	—	1			
Infantile deplegia,	1	—	1			
Congenital syphilis,	—	1	1			
Vascular neurosyphilis,	1	—	1			
Addison's disease,	1	—	1			
Convulsive tic,	1	—	1			
Organic chord disease,	1	1	2			
Syphilis,	1	—	1			
Neurosyphilis,	2	1	3			
Paranoic personality,	—	2	2			
Arteriosclerosis,	—	1	1			
Hyperthyroidism,	—	1	1			
Undifferentiated,	24	21	45			
Total,				920	938	1,858

Portuguese,	5	7	12	1	1	7	37	69	106	59	44	103	130	19	149	27	16	43	-	2	2
Roumanian,	1	1	2	-	-	-	-	-	1	1	-	-	-	-	6	-	-	-	-	-	-
Scandinavian,	24	18	42	1	1	1	1	1	2	2	-	-	-	1	5	-	1	1	-	-	-
Scotch,	13	15	28	1	1	1	1	1	1	2	-	-	-	1	9	3	-	3	-	-	-
Slavonic,	71	50	121	-	-	-	-	-	1	2	-	-	-	1	-	-	-	6	-	-	-
Spanish,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spanish American,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syrian,	3	2	5	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Turkish,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Indian,	3	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races,	6	4	10	-	-	-	-	1	1	2	-	-	3	1	12	3	3	6	-	1	1
Mixed,	56	48	104	-	-	-	3	2	5	2	7	9	11	1	9	3	2	5	-	-	-
Race unascertained,	74	103	177	-	-	-	4	15	19	8	8	16	9	-	9	3	-	3	-	-	-
Total,	920	938	1,858	6	1	7	37	69	106	59	44	103	130	19	149	27	16	43	-	2	2

TABLE 7. — *Race of First Admissions classified with Reference to Psychoses — Continued.*

[illegible]

TABLE 7. — *Race of First Admissions classified with Reference to Psychoses — Concluded.*

[illegible]

TABLE 8. — Age of First Admissions classified with Reference to Principal Psychoses.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-20.			20-25.			25-30.			30-35.			35-40.			40-45.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	7	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	3	1	4	2	-	2
2. Senile,	37	69	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3. With cerebral arteriosclerosis,	59	44	103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4. General paralysis,	130	19	149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. With cerebral syphilis,	27	16	43	-	1	1	-	-	-	-	-	-	2	-	2	-	-	-	1	2	3	7	2	30
6. With Huntington's chorea,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor,	4	5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases,	2	10	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic,	143	67	210	-	-	-	-	-	-	4	3	7	11	5	16	17	8	25	19	14	33	24	14	38
10. Due to drugs and other exogenous toxins,	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases,	6	24	30	-	-	-	1	3	4	-	4	4	-	4	4	-	3	3	4	11	15	-	-	-
13. Manic-depressive,	65	94	159	-	-	-	7	6	13	9	6	15	5	16	21	5	15	20	4	11	15	8	12	20
14. Involution melancholia,	7	14	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15. Dementia præcox,	164	207	371	-	-	-	24	16	40	40	41	81	48	44	92	32	38	70	14	35	49	4	20	24
16. Paranoia and paranoid conditions,	21	24	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4	5	2	7
17. Psychoneuroses,	19	46	65	-	-	-	1	5	6	3	4	7	3	11	14	2	3	5	2	10	12	1	4	5
18. With mental deficiency,	6	4	10	-	-	-	2	1	3	-	1	1	2	1	3	-	-	-	2	2	2	-	-	-
19. With constitutional psychopathic inferiority,	-	2	2	-	-	-	3	3	6	4	3	7	6	1	7	1	1	2	4	2	6	3	6	9
20. Epileptic,	26	25	51	-	-	-	3	7	10	6	10	16	6	3	9	8	4	12	5	10	15	3	3	6
21. Undiagnosed,	47	56	103	-	-	-	22	84	106	19	40	59	19	23	42	15	16	31	14	15	29	11	3	14
22. Not insane,	150	205	355	-	13	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total,	920	938	1,858	28	17	45	63	131	194	88	112	200	107	110	217	100	97	197	96	112	208	93	78	171

TABLE 9. — Degree of Education of First Admissions classified with Reference to Psychoses.

PSYCHOSES.	TOTAL.			ILLITERATE.			READS AND WRITES.			COMMON SCHOOL.			HIGH SCHOOL.			COLLEGE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	1	7	4	16	20	7	6	13	13	5	5	1	2	3	1	1	1	11	19	30
2. Senile,	37	69	106	7	5	12	9	8	17	26	26	33	2	4	6	14	15	29	10	9	19
3. With cerebral arteriosclerosis,	59	44	103	7	5	12	9	8	17	26	26	33	2	4	6	14	15	29	10	9	19
4. General paralysis,	130	19	149	3	1	4	18	3	21	71	11	82	3	1	4	5	5	10	24	3	27
5. With cerebral syphilis,	27	16	43	1	1	2	3	1	4	16	10	26	3	1	4	5	5	10	4	3	7
6. With Huntington's chorea,	4	5	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	2	10	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	143	67	210	8	6	14	37	24	61	72	25	97	10	1	11	1	1	2	15	10	25
10. Due to drugs and other exogenous toxins,	1	4	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	6	24	30	—	2	2	1	7	8	5	5	10	—	3	3	—	—	—	—	—	—
13. Manic-depressive,	65	94	159	4	8	12	8	13	21	34	44	78	14	15	29	4	3	7	1	11	12
14. Involution melancholia,	7	14	21	—	1	1	2	1	3	4	11	15	—	—	—	—	—	—	—	—	—
15. Dementia praecox,	164	207	371	9	10	19	43	46	89	71	85	156	28	36	64	3	1	4	10	29	39
16. Paranoia and paranoic conditions,	21	24	45	1	2	3	5	7	12	8	8	16	3	5	8	—	—	—	4	2	6
17. Psychoneuroses,	19	46	65	1	2	3	10	7	17	4	28	32	3	5	8	1	—	—	—	—	—
18. With mental deficiency,	6	4	10	—	1	1	5	2	5	1	3	4	—	—	—	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. Epileptic,	26	25	51	3	2	5	7	10	17	10	7	17	2	2	4	2	—	—	2	4	6
21. Undiagnosed,	47	56	103	6	4	10	6	5	11	17	25	42	4	8	12	4	1	5	13	14	27
22. Not insane,	150	205	355	10	18	28	31	61	92	80	100	180	16	13	29	3	—	3	10	13	23
Total,	920	938	1,858	57	80	137	193	206	399	440	417	857	102	95	197	21	5	26	107	135	242

TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	7	9	1	7	—	—	—	1	—	1
2. Senile,	37	69	106	36	69	105	2	—	2	—	—	—
3. With cerebral arteriosclerosis,	39	44	103	57	44	101	1	—	1	—	—	—
4. General paralysis,	130	19	149	129	19	148	—	—	—	—	—	—
5. With cerebral syphilis,	27	16	43	27	16	43	—	—	—	—	—	—
6. With Huntington's chorea,	—	2	2	—	2	2	—	—	—	—	—	—
7. With brain tumor,	4	5	9	4	5	9	—	—	—	—	—	—
8. With other brain or nervous diseases,	2	10	12	2	10	12	—	—	—	—	—	—
9. Alcoholic,	143	67	210	139	67	206	3	—	3	1	—	1
10. Due to drugs and other exogenous toxins,	1	4	5	1	4	5	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	6	24	30	6	24	30	—	—	—	—	—	—
13. Manic-depressive,	65	94	159	63	94	157	2	—	2	—	—	—
14. Involution melancholia,	7	14	21	7	14	21	—	—	—	—	—	—
15. Dementia precox,	164	207	371	160	202	362	4	4	8	1	1	1
16. Paranoia and paranoic conditions,	21	24	45	21	24	45	—	—	—	—	—	—
17. Psychoneuroses,	19	46	65	19	45	64	—	1	1	—	—	—
18. With mental deficiency,	6	4	10	6	4	10	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	2	2	—	2	2	—	—	—	—	—	—
20. Epileptic,	26	25	51	25	24	49	1	1	2	—	—	—
21. Undiagnosed,	47	56	103	47	55	102	—	1	1	—	—	—
22. Not insane,	150	205	355	145	205	350	5	—	5	—	—	—
Total,	920	938	1,858	900	930	1,830	18	7	25	2	1	3

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses.*

PSYCHOSES.	TOTAL.			DEPENDENT.			MARGINAL.			COMFORTABLE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	7	5	23	28	6	1	7	5	7	12	1	4	5
2. Senile,	37	69	106	5	5	10	26	35	61	6	5	11	—	—	—
3. With cerebral arteriosclerosis,	59	44	103	5	5	10	48	34	82	6	5	11	—	—	—
4. General paralysis,	130	19	149	1	2	3	93	13	106	34	3	37	—	1	3
5. With cerebral syphilis,	27	16	43	1	—	1	20	14	34	5	2	7	1	—	1
6. With Huntington's chorea,	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
7. With brain tumor,	4	5	9	—	—	—	3	4	7	1	1	2	—	—	—
8. With other brain or nervous diseases,	2	10	12	—	—	—	2	9	11	—	—	—	—	—	—
9. Alcoholic,	143	67	210	—	3	3	130	61	191	10	3	13	3	—	3
10. Due to drugs and other exogenous toxins,	1	4	5	—	—	—	1	3	4	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	6	24	30	1	4	5	5	12	18	—	4	4	—	3	3
13. Manic-depressive,	65	94	159	1	—	1	45	75	120	19	10	29	—	—	—
14. Involution melancholia,	7	14	21	—	—	—	7	10	17	—	3	3	—	1	1
15. Dementia præcox,	164	207	371	3	7	10	145	179	324	15	18	33	1	3	4
16. Paranoia and paranoic conditions,	21	24	45	1	—	1	17	19	36	3	3	6	—	2	2
17. Psychoneuroses,	19	46	65	3	2	5	14	36	50	5	7	12	—	1	1
18. With mental deficiency,	6	4	10	—	—	—	3	1	4	—	—	—	—	1	—
19. With constitutional psychopathic inferiority,	2	2	4	—	1	1	—	1	1	—	—	—	—	1	1
20. Epileptic,	26	25	51	—	1	1	22	22	44	4	1	5	—	6	10
21. Diagnosed,	47	56	103	—	3	3	35	38	73	8	9	17	4	2	6
22. Not insane,	150	205	355	7	59	66	118	130	248	24	14	38	1	2	3
Total,	920	938	1,858	28	112	140	740	700	1,440	139	101	240	13	25	38

TABLE 12. — *Use of Alcohol by First Admissions classified with Reference to Principal Psychoses.*

PSYCHOSES.	TOTAL.			ABSTINENT.			TEMPERATE.			INTERTEMPERATE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	1	7	3	—	3	2	—	2	1	—	1	—	—	—
2. Senile,	37	69	106	6	19	25	16	19	35	11	7	18	4	24	28
3. With cerebral arteriosclerosis,	130	44	174	12	20	32	20	19	39	22	7	29	8	7	15
4. General paralysis,	27	19	46	12	5	17	62	9	71	38	2	40	18	3	21
5. With cerebral syphilis,	—	16	16	1	5	6	12	4	16	12	2	14	2	5	7
6. With Huntington's chorea,	—	2	2	—	—	—	—	1	1	—	—	—	—	—	—
7. With brain tumor,	4	5	9	—	3	3	2	1	3	2	—	2	—	1	1
8. With other brain or nervous diseases,	2	10	12	1	4	5	—	4	4	1	—	1	—	1	1
9. Alcoholic,	143	67	210	—	—	—	—	2	2	143	65	208	—	2	2
10. Due to drugs and other exogenous toxins,	1	4	5	—	1	1	—	—	—	1	1	2	—	—	2
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	6	24	30	1	8	9	2	6	8	3	1	4	—	—	—
13. Manic-depressive,	65	94	159	19	49	68	31	34	65	10	1	11	5	10	15
14. Involution melancholia,	7	14	21	2	8	10	69	4	7	2	—	2	—	2	2
15. Dementia præcox,	164	207	371	48	94	142	69	83	152	23	5	28	24	25	49
16. Paranoia and paranoid conditions,	21	24	45	3	8	11	9	10	19	6	2	8	3	4	7
17. Psychoneuroses,	19	46	65	3	21	24	12	17	29	3	3	6	1	8	9
18. With mental deficiency,	6	4	10	3	1	4	2	2	4	1	1	2	—	—	—
19. With constitutional psychopathic inferiority,	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
20. Epilepsy,	26	25	51	11	11	22	6	8	14	5	2	7	4	4	8
21. Undiagnosed,	47	56	103	10	22	32	12	19	31	18	7	25	7	8	15
22. Not insane,	150	205	355	45	78	123	44	80	124	51	25	76	10	22	32
Total,	920	938	1,858	177	350	527	304	322	626	353	129	482	86	137	223

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses.*

	TOTAL.			SINGLE.			MARRIED.			WIDOWED.			SEPARATED.			DIVORCED.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	1	7	2	-	2	1	1	2	1	-	1	-	-	-	1	-	1	1	-	1
2. Senile,	37	69	106	5	14	19	18	10	28	13	44	57	-	-	-	1	-	1	1	-	1
3. Cerebral arteriosclerosis,	59	44	103	6	16	22	36	12	48	16	25	41	-	-	-	1	-	1	1	-	1
4. General paralysis,	130	19	149	30	4	34	86	11	97	12	25	37	-	1	1	2	2	4	1	-	1
5. With cerebral syphilis,	27	16	43	11	3	14	10	8	18	5	4	9	-	-	-	1	1	1	1	-	1
6. With Huntington's chorea,	2	2	4	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor,	4	5	9	2	1	3	2	2	4	-	-	1	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases,	2	10	12	2	6	8	-	2	2	-	2	2	-	-	-	-	-	-	-	-	-
9. Alcoholic,	143	67	210	67	9	76	61	41	102	14	14	28	1	-	1	-	-	3	1	-	-
10. Due to drugs and other exogenous toxins,	1	4	5	-	-	-	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases,	6	24	30	3	8	11	3	15	18	-	-	-	-	-	-	-	-	-	-	-	-
13. Manic-depressive,	65	94	159	34	34	68	26	50	76	3	9	12	-	-	-	2	1	3	1	-	-
14. Involution melancholia,	7	14	21	3	3	6	4	9	13	3	2	5	-	-	-	-	-	-	-	-	-
15. Dementia præcox,	164	207	371	136	121	257	24	75	99	3	8	11	1	1	2	1	1	2	3	1	4
16. Paranoia and paranoic conditions,	21	24	45	4	7	11	14	12	26	2	5	7	-	-	-	1	-	1	-	-	-
17. Psychoneuroses,	19	46	65	11	16	27	8	22	30	-	6	6	-	-	-	-	-	2	-	-	-
18. With mental deficiency,	6	4	10	6	4	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. With constitutional psychopathic inferiority,	-	2	2	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20. Epileptic,	26	25	51	15	13	28	10	10	20	-	-	1	-	-	-	1	-	1	-	1	1
21. Undiagnosed,	47	56	103	25	20	45	19	27	46	1	8	9	-	-	-	1	-	1	2	1	3
22. Not insane,	150	205	355	106	148	254	38	45	83	3	10	13	-	-	-	2	1	3	1	-	2
Total,	920	938	1,858	465	419	884	361	357	718	73	141	214	1	3	4	11	14	25	9	4	13

PSYCHOSES.

TABLE 14. — *Psychoses of Readmissions.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	—	—	—	2	—	2
2. Senile, total,	—	—	—	—	3	3
(a) Simple deterioration,	—	3	3	—	—	—
(b) Presbyophrenic type,	—	—	—	—	—	—
(c) Delirious and confused states,	—	—	—	—	—	—
(d) Depressed and agitated states in addition to deterioration,	—	—	—	—	—	—
(e) Paranoid states in addition to deterioration,	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	—	—	—	8	4	12
4. General paralysis,	—	—	—	32	6	38
5. With cerebral syphilis,	—	—	—	9	2	11
6. With Huntington's chorea,	—	—	—	1	—	1
7. With brain tumor,	—	—	—	1	—	1
8. With other brain or nervous diseases,	—	—	—	—	—	—
9. Alcoholic, total,	—	—	—	19	10	29
(a) Pathological intoxication,	—	—	—	—	—	—
(b) Delirium tremens,	2	1	3	—	—	—
(c) Acute hallucinosis,	7	4	11	—	—	—
(d) Acute paranoid type,	—	1	1	—	—	—
(e) Korsakow's psychosis,	1	3	4	—	—	—
(f) Chronic hallucinosis,	1	—	1	—	—	—
(g) Chronic paranoid type,	5	—	5	—	—	—
(h) Alcoholic deterioration,	3	1	4	—	—	—
10. Due to drugs and other exogenous toxins, total,	—	—	—	1	1	2
(a) Morphine, cocaine, bromides, chloral, etc., alone or combined,	1	1	2	—	—	—
11. With pellagra,	—	—	—	—	—	—
12. With other somatic diseases, total,	—	—	—	—	1	1
(a) Delirium with infectious diseases,	—	—	—	—	—	—
(b) Post-infectious psychoses,	—	—	—	—	—	—
(c) Exhaustion delirium,	—	1	1	—	—	—
(d) Delirium of unknown origin,	—	—	—	—	—	—
(e) Diseases of the ductless glands,	—	—	—	—	—	—
(f) Cardiorenal disease,	—	—	—	—	—	—
(g) Cancer,	—	—	—	—	—	—
13. Manic-depressive, total,	—	—	—	32	70	102
(a) Manic type,	9	33	42	—	—	—
(b) Depressive type,	21	24	45	—	—	—
(c) Stupor,	—	—	—	—	—	—
(d) Mixed type,	1	8	9	—	—	—
(e) Circular type,	1	5	6	—	—	—
14. Involution melancholia,	—	—	—	—	2	2
15. Dementia præcox, total,	—	—	—	60	69	129
(a) Paranoid type,	27	43	70	—	—	—
(b) Katatonic type,	7	5	12	—	—	—
(c) Hebephrenic type,	26	19	45	—	—	—
(d) Simple type,	—	2	2	—	—	—
16. Paranoia and paranoic conditions,	—	—	—	4	6	10
17. Psychoneuroses, total,	—	—	—	3	2	5
(a) Hysterical type,	—	—	—	—	—	—
(b) Psychasthenic type,	—	1	1	—	—	—
(c) Neurasthenic type,	3	1	4	—	—	—
18. With mental deficiency,	—	—	—	—	1	1
19. With constitutional psychopathic inferiority,	—	—	—	1	—	1
20. Epileptic, total,	—	—	—	8	1	9
(a) Deterioration,	1	—	1	—	—	—
(b) Clouded states,	7	1	8	—	—	—
(c) Other conditions,	—	—	—	—	—	—
21. Undiagnosed,	—	—	—	6	6	12

TABLE 14. — *Psychoses of Readmissions* — Concluded.

PSYCHOSES.						
	Males.	Females.	Totals.	Males.	Females.	Totals.
22. Not insane, total,				17	13	30
(a) Epilepsy without psychosis,	2	—	2			
(b) Alcoholism without psychosis,	2	—	2			
(c) Drug addiction without psychosis,	—	—	—			
(d) Constitutional psychopathic inferiority without psychosis,	4	10	14			
(e) Mental deficiency without psychosis,	7	3	10			
(f) Others:—						
Tabes dorsalis,	1	—	1			
Organic chord disease,	1	—	1			
Total,				204	197	401

TABLE 15. — Discharges of Patients classified with Reference to Principal Psychoses and Condition of Discharge.

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			NOT INSANE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	5	-	5	-	-	-	3	-	3	2	-	2	-	-	-
2. Senile,	13	22	35	-	-	-	3	6	9	10	16	26	-	-	-
3. With cerebral arteriosclerosis,	32	13	45	-	-	-	11	3	14	21	10	31	-	-	-
4. General paralysis,	100	17	117	-	-	-	14	2	16	86	15	101	-	-	-
5. With cerebral syphilis,	32	11	43	-	-	-	8	2	10	24	9	33	-	-	-
6. With Huntington's chorea,	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-
7. With brain tumor,	1	2	3	-	-	-	-	-	-	1	2	3	-	-	-
8. With other brain or nervous diseases,	4	1	5	-	-	-	-	-	-	1	1	2	-	-	-
9. Alcoholic,	129	44	173	41	6	47	60	29	89	28	9	37	-	-	-
10. Due to drugs and other exogenous toxins,	1	1	2	-	-	-	1	1	2	-	2	2	-	-	-
11. With pellagra,	1	4	5	1	-	1	-	-	-	-	-	-	-	-	-
12. With other somatic diseases,	3	17	20	1	3	4	1	7	8	1	7	8	-	-	-
13. Manic-depressive,	87	144	231	14	37	51	38	65	103	35	42	77	-	-	-
14. Involution melancholia,	1	11	12	-	8	8	1	1	2	135	3	138	-	-	-
15. Dementia praecox,	181	194	375	5	-	5	41	30	71	14	164	299	-	-	-
16. Paranoia and paranoid conditions,	16	18	34	-	-	-	2	7	9	14	11	25	-	-	-
17. Psychoneuroses,	1	4	5	-	1	1	1	3	4	-	-	-	-	-	-
18. With mental deficiency,	4	3	7	-	-	-	1	2	3	2	2	4	-	-	-
19. With constitutional psychopathic inferiority,	1	2	3	-	-	-	1	1	2	-	-	-	-	-	-
20. Epileptic,	17	13	30	-	-	-	3	5	8	14	8	22	-	-	-
21. Undiagnosed,	54	74	128	-	2	2	16	25	41	38	47	85	-	-	-
22. Not insane,	234	310	544	-	-	-	-	-	-	234	-	234	310	-	544
Total,	918	905	1,823	62	57	119	206	190	396	416	348	764	234	310	544

	16	16	32	-	2	2	16	13	29	-	-	-	-	7	18	-	3	3	6	4	10	12	11	23	
Cerebral arteriosclerosis,	.	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cerebral thrombosis,	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chronic valvular heart disease,	2	2	10	1	3	4	1	2	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	
Chronic myocarditis,	5	8	13	3	4	7	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cellulitis (septic),	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Acute pericarditis,	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Myocardial degeneration,	1	1	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aortic regurgitation,	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chronic mitral insufficiency,	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chronic mitral stenosis,	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Acute myocarditis,	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aneurysm,	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dilatation of heart,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Diseases of Respiratory System.</i>																									
Lobar pneumonia,	11	16	27	2	9	11	3	2	5	-	-	-	-	1	2	-	-	-	-	-	-	1	2	3	8
Broncho-pneumonia,	16	11	27	5	3	8	1	1	2	-	-	-	-	1	1	-	-	-	-	-	-	5	3	3	8
Pulmonary tuberculosis,	8	6	14	1	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-
Pulmonary and abdominal tubercu- culosis,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Empyema,	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute bronchitis,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chronic bronchitis,	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
<i>Diseases of Digestive System.</i>																									
Acute colitis,	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duodenal ulcers,	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peritonitis (ruptured appendix),	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peritonitis (tubercular),	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peritonitis (perinephritic abscess),	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Peritonitis (retroperitoneal abscess),	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diarrhoea and enteritis,	-	3	3	-	2	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteritis, acute,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteritis, chronic,	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cirrhosis of liver, chronic,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterocolitis, chronic,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colitis,	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Diseases of Genitourinary System.</i>																									
Chronic interstitial nephritis,	-	3	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>External Causes.</i>																									
Medico-legal,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medico-legal (fractured skull on ad- mission),	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total,	133	144	277	17	41	58	28	31	59	36	11	47	11	7	18	-	3	3	6	4	10	12	11	23	

TABLE 16. — *Cause of Death of Patients classified with Reference to Principal Psychoses — Concluded.*

CAUSE OF DEATH.	PSYCHOSES.											
	WITH OTHER SOMATIC DISEASES.			MANIC-DEPRESSIVE.			INVOLUTION MELANCHOLIA.			DEMENTIA PRÆCOX.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
<i>General Diseases.</i>												
Exhaustion,	1	1	2	1	1	2	1	2	3	1	2	3
Pernicious anemia,	1	1	2	1	1	2	1	1	2	1	1	2
Erysipelas,	1	1	2	1	1	2	1	1	2	1	1	2
Cancer of breast,	1	1	2	1	1	2	1	1	2	1	1	2
Cancer of liver,	1	1	2	1	1	2	1	1	2	1	1	2
Fracture of femur (accidental),	1	1	2	1	1	2	1	1	2	1	1	2
Septicæmia from streptococcus infection,	1	1	2	1	1	2	1	1	2	1	1	2
Acute alcoholism,	1	1	2	1	1	2	1	1	2	1	1	2
<i>Diseases of Nervous System.</i>												
Cerebrospinal syphilis,	1	1	2	1	1	2	1	1	2	1	1	2
Tubo-paresis,	1	1	2	1	1	2	1	1	2	1	1	2
Cerebral apoplexy,	1	1	2	1	1	2	1	1	2	1	1	2
Cerebral tumor,	1	1	2	1	1	2	1	1	2	1	1	2
Cerebral hemorrhage,	1	1	2	1	1	2	1	1	2	1	1	2
Meningitis (tuetic),	1	1	2	1	1	2	1	1	2	1	1	2
General paralysis of insane,	1	1	2	1	1	2	1	1	2	1	1	2
Organic brain disease,	1	1	2	1	1	2	1	1	2	1	1	2
Encephalitis (puerperal),	1	1	2	1	1	2	1	1	2	1	1	2
Neuritis (alcoholic),	1	1	2	1	1	2	1	1	2	1	1	2
Meningitis (tubercular),	1	1	2	1	1	2	1	1	2	1	1	2
Myelitis,	1	1	2	1	1	2	1	1	2	1	1	2
Myelitis (traumatic),	1	1	2	1	1	2	1	1	2	1	1	2
Chorea,	1	1	2	1	1	2	1	1	2	1	1	2

[illegible]

TABLE 17. — Age of Patients at Time of Death classified with Reference to Principal Psychoses.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.		15-20.		20-25.		25-30.		30-35.		35-40.		40-45.								
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.						
1. Traumatic,	17	41	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
2. Senile,	28	31	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
3. With cerebral arteriosclerosis,	36	11	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
4. General paralysis,	11	7	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
5. With cerebral syphilis,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
6. With Huntington's chorea,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
7. With brain tumor,	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
8. With other brain or nervous diseases,	6	4	10	1	-	1	-	-	-	-	-	-	-	-	-	-	-							
9. Alcoholic,	12	11	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
10. Due to drugs and other exogenous toxins,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
11. With pellagra,	-	7	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
12. With other somatic diseases,	3	7	10	-	1	1	2	-	-	-	-	-	-	-	-	-	-							
13. Manic-depressive,	4	8	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
14. Involution melancholia,	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
15. Dementia præcox,	10	11	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
16. Paranoia and paranoid conditions,	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
17. Psychoneuroses,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
18. With mental deficiency,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
19. With constitutional psychopathic inferiority,	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
20. Epileptic,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
21. Undiagnosed,	2	5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
22. Not insane,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Total,	133	144	277	1	-	1	1	2	3	5	1	6	4	4	8	7	5	12	6	9	15	12	11	23

TABLE 18.—*Total Duration of Hospital Life of Patients dying in Hospital classified according to Psychoses.*

PSYCHOSES.	TOTAL.			MONTHS.											
	Males.	Females.	Totals.	LESS THAN 1.			1-3.			4-7.			8-12.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	17	41	58	5	10	15	3	5	8	1	1	2	1	1	2
2. Senile,	28	31	59	5	9	14	6	6	12	2	2	4	6	1	7
3. With cerebral arteriosclerosis,	36	11	47	4	1	5	9	1	10	9	8	17	1	1	2
4. General paralysis,	11	7	18	2	4	6	—	1	1	3	2	5	3	1	4
5. With cerebral syphilis,	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
6. With Huntington's chorea,	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	6	3	9	4	—	4	1	2	3	—	—	—	2	—	2
9. Alcoholic,	12	11	23	4	5	9	—	—	—	—	1	1	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	3	7	10	3	6	9	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	4	8	12	1	1	2	—	—	—	—	—	—	—	—	—
14. Involution melancholia,	2	3	5	1	1	2	—	—	—	—	—	—	2	—	2
15. Dementia præcox,	10	11	21	2	2	4	—	—	—	—	—	—	—	—	—
16. Paranoia and paranoic conditions,	—	2	2	—	—	—	—	—	—	—	1	1	—	—	—
17. Psychoneuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. With mental deficiency,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
20. Epileptic,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	2	5	7	2	2	4	—	—	—	—	—	—	—	—	—
22. Not insane,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	133	144	277	33	42	75	19	23	42	16	19	35	18	5	23

TABLE 19. — *Family Care Department.*

	Males.	Females.	Totals.
Remaining Sept. 30, 1916,	2	6	8
Admitted within the year,	1	7	8
Nominal admissions from visit for year,	—	3	3
Whole number of cases within year,	3	16	19
Dismissed within the year,	3	5	8
Returned to institution,	2	1	3
Discharged,	1	4	5
On visit,	—	—	—
Remaining Sept. 30, 1917,	—	11	11
Supported by State,	—	5	5
Private,	—	1	1
Self-supporting,	—	5	5
Number of different persons within year,	2	13	15
Number of different persons admitted,	1	7	8
Number of different persons discharged,	2	1	3
Daily average number,45	8.02	8.47
State,45	5.40	5.85
Private,	—	.52	.52
Self-supporting,	—	2.10	2.10
Reimbursing,	—	—	—

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Massachusetts

TENTH ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

(FORMERLY THE BOSTON LUNATIC HOSPITAL, OPENED IN 1839)

FOR THE YEAR ENDING NOVEMBER 30, 1918



BOSTON

WRIGHT & POTTER PRINTING CO., STATE PRINTERS

32 DERNE STREET

1919

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APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

1386
1917/18

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BOSTON STATE HOSPITAL.

BOARD OF TRUSTEES.

HENRY LEFAVOUR, <i>Chairman</i> ,	BOSTON.
Mrs. KATHERINE G. DEVINE, <i>Secretary</i> ,	BOSTON.
Mrs. HELEN B. HOPKINS,	BOSTON.
JOHN A. KIGGEN, *	HYDE PARK.
WILLIAM F. WHITTEMORE,	BOSTON.
HYMAN B. SWIG, D.M.D.,	ROXBURY.
CHARLES B. FROTHINGHAM, M.D.,	LYNN.

CONSULTING PHYSICIANS.

JOHN L. AMES, M.D.,	<i>Physician.</i>
WILLIAM E. PREBLE, M.D.,	<i>Physician.</i>
JOHN BAPST BLAKE, M.D.,	<i>Surgeon.</i>
FRED B. LUND, M.D.,	<i>Surgeon.</i>
IRVING J. WALKER, M.D.,	<i>Surgeon.</i>
JOHN JENKS THOMAS, M.D.,	<i>Neurologist.</i>
ROBERT G. LORING, M.D.,	<i>Ophthalmologist.</i>
HARRIS P. MOSHER, M.D.,	<i>Laryngologist.</i>
MALCOLM STORER, M.D.,	<i>Gynecologist.</i>
CHARLES J. WHITE, M.D.,	<i>Dermatologist.</i>

OFFICERS OF THE HOSPITAL.

JAMES V. MAY, M.D.,	<i>Superintendent.</i>
---------------------	------------------------

HOSPITAL.

ERMY C. NOBLE, M.D.,	<i>Assistant Superintendent.</i>
MARY E. GILL NOBLE, M.D.,	<i>Senior Assistant Physician.</i>
EDMUND M. PEASE, M.D.,	<i>Senior Assistant Physician.</i>
DORA W. FAXON, M.D.,	<i>Senior Assistant Physician.</i>
S. FINLEY GORDON, M.D.,	<i>Assistant Physician.</i>
RODERICK B. DEXTER, M.D.,	<i>Assistant Physician.</i>
FLORENCE H. ABBOT, M.D.,	<i>Assistant Physician.</i>
OSCAR J. RAEDER, M.D.,	<i>Pathologist.</i>
ARTHUR E. GILMAN,	<i>Steward.</i>
FRED L. BROWN,	<i>Treasurer.</i>

PSYCHOPATHIC DEPARTMENT.

ELMER E. SOUTHARD, M.D.,	Director.
ARTHUR P. NOYES, M.D.,	Chief Executive Officer.
LAWSON G. LOWREY, M.D.,	Chief Medical Officer.
CLIFFORD G. ROUNSEFELL, M.D.,	Executive Officer.
JOHN H. TRAVIS, M.D., ¹	Assistant Medical Officer.
ESTHER S. B. WOODWARD, M.D.,	Assistant Medical Officer.
RICHARD H. PRICE, M.D.,	Assistant Medical Officer.
KARL A. MENNINGER, M.D.,	Assistant Medical Officer.
ANNETTE MCINTIRE, M.D.,	Assistant Medical Officer.
EDWIN R. SMITH, M.D.,	Assistant Medical Officer.
A. T. MATHERS, M.D.,	Medical Interne.
LILLA RIDOUT, M.D.,	Medical Interne.
ABRAHAM MYERSON, M.D.,	Chief Medical Officer, Out-patient Department.
CHARLES B. SULLIVAN, M.D.,	Assistant Medical Officer Out-patient Department.
MINER H. EVANS, M.D.,	Assistant Medical Officer Out-patient Department.
JOSEPHINE C. FOSTER, Ph.D.,	Chief Psychologist.
FRANCES A. BEAN,	Assistant Psychologist.
MARY C. JARRETT,	Chief of Social Service.
HELEN L. MYRICK,	Head Social Worker.

¹ On leave of absence.

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The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to submit herewith their tenth annual report.

PERSONNEL OF THE BOARD.

The membership in the Board left vacant by the death of Mr. Lehman Pickert was filled by the appointment of Dr. Hyman B. Swig of Boston. Dr. Charles B. Frothingham of Lynn was appointed to succeed Dr. John F. Fennessey, who resigned to enter the Medical Corps of the army. Mrs. Katherine G. Devine has been chosen as secretary of the Board. The trustees have held twelve regular and two special meetings during the year.

PERSONS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the statistical year there were 1,465 patients in the main hospital, 95 in the psychopathic department and 11 boarded with private families, a total of 1,795 persons under the care of this Board, of whom 224 were on visit or escape. At the close of the year the total number was 1,919, of whom 1,566 were in the main hospital, 89 in the psychopathic department, 8 in private care, and 256 on visit or escape. The total number of patients received in the wards of the psychopathic department during the year was 1,945, while 2,543 persons came to the out-patient department for advice and treatment.

CONSTRUCTION AND IMPROVEMENTS.

The General Court in 1918 appropriated \$397,500 for the following additions and improvements:—

For a male infirmary for 324 patients and 30 nurses,	\$385,000
For a boiler and blower,	11,000
For window bars,	1,500

The boiler and blower have been installed, the window bars for the psychopathic department have been contracted for, and the foundations laid for the new building.

During the year the nurses' home in the West Group, previously authorized, has been completed, and various improvements and renovations in the older buildings have been undertaken.

IMPROVEMENTS RECOMMENDED.

For the coming year the following requests for special appropriations have been recommended to the Commission on Mental Diseases: —

Kitchen and dining-room building, West Group,	\$116,000
Kitchen and dining-room building, East Group,	116,000
Nurses' home, East Group,	84,000
Superintendent's house,	20,000

The facilities for preparing and distributing food were inadequate and unsatisfactory when the Commonwealth took over the institution in 1908, and there has been little advance made, notwithstanding the large growth of the institution. The kitchens are poorly lighted and ventilated, and are crowded with old equipment. Food must be taken to a great many small dining rooms, losing thereby in its attractiveness, and the small dining rooms occupy valuable space and require an excessive number of attendants. To provide even for the present needs, as well as for the prospective requirements, a new kitchen and dining-room building in each group is very much needed. A nurses' home in the East Group, corresponding to the one just completed in the West Group, would enable us to furnish suitable quarters for the nurses, — an inducement that has become a necessity if we are to secure their services, — and needed space for patients would thereby become available. As the hospital has no residence for a superintendent, the need of such a house is obvious.

The Board has further recommended to the Commission on Mental Diseases that legislation be asked for, if necessary, to provide for the enclosure of the Canterbury branch of Stony Brook where it crosses the land of the hospital. Serious overflows from the open trench have several times occurred, endangering the steam connections and the operation of the

power plant. Frequent cleaning of the trench will be necessary if it remains open, as sediment is being constantly brought down from the upper part of the branch, which is enclosed and used as a surface drain for the streets. Not only is this removal of sediment very expensive, but if the watercourse could be enclosed it would render available a large tract of land suitable for building purposes.

The Board also recommends that the Commonwealth acquire the parcel of land now owned by the Forest Hills Cemetery Association on the southeasterly side of Canterbury Street. This land with its small buildings would be of great service to the hospital, and by acquiring it the hospital property would not abut on any private land but would be bounded by four streets.

ESTIMATES FOR MAINTENANCE.

The following are the estimates of the sum needed for maintenance for the ensuing year, based upon the data furnished by the Commission on Mental Diseases: —

Salaries and wages,	\$302,787 00
Religious instruction,	1,500 00
Travel, transportation and office expenses,	15,388 00
Food,	242,729 96
Clothing and materials,	27,700 00
Furnishings and household supplies,	39,798 00
Medical and general care,	22,885 00
Heat, light and power,	99,726 00
Farm and stable,	12,616 00
Grounds,	1,015 00
Repairs, ordinary,	22,785 27
Repairs and renewals (not recurring annually),	23,887 90
Maintenance of industries,	260 00
<hr/>	
Total,	\$813,078 13

ADMINISTRATION.

Dr. James V. May entered upon his duties as superintendent Dec. 1, 1917, and to his wise and efficient administration the present excellent condition of the institution is due. In the care of the main hospital he has been supported by Dr. Ermy C. Noble, who has been made assistant superintendent. The work of the psychopathic department has been organized by

appointing Dr. Arthur P. Noyes chief executive officer and Dr. Lawson G. Lowrey chief medical officer, both of whom are responsible to the superintendent in matters connected with the management of the department. The director of the psychopathic department, Dr. E. E. Southard, was granted leave of absence in September so that he might enter upon his duties in the Chemical Warfare Service, in which he received a commission as major. The signing of the armistice will fortunately permit his early return to the service of the Commonwealth.

The scarcity of all forms of assistance during the year in the medical and nursing, as well as the industrial and mechanical, services, has rendered the task of administering the institution one of great and perplexing difficulties, involving the comfort, welfare and even safety of the patients. The trustees desire to record their grateful appreciation of the efforts of all the officers in cheerfully adapting themselves to these trying conditions.

The administrative and financial details of the year are shown in the accompanying reports of the superintendent and treasurer.

HENRY LEFAVOUR.
KATHERINE G. DEVINE.
HELEN B. HOPKINS.
JOHN A. KIGGEN.
WILLIAM F. WHITTEMORE.
HYMAN B. SWIG.
CHARLES B. FROTHINGHAM.

Nov. 30, 1918.

REPORT OF THE SUPERINTENDENT.

To the Board of Trustees of the Boston State Hospital.

In accordance with the provisions of the statutes, I am submitting for your consideration the tenth annual report of the superintendent for the statistical year ending Sept. 30, 1918, and the fiscal year ending Nov. 30, 1918.

The present superintendent assumed charge of the institution on Dec. 1, 1917, succeeding Dr. Henry P. Frost, who died on May 23, 1917, after a prolonged illness. Dr. Frost served as superintendent of the hospital from April 15, 1910, until the time of his death, — an important period in the history of the institution. During his administration the psychopathic department on Fenwood Road was established and opened on June 24, 1912. The infirmary building in the West Group was open for patients during the same year. The new central power plant, laundry building, storehouse and reception building were added to the East Group. A cottage for male attendants, two cottages for working patients, the congregate dining room and Buildings G and H were completed in the West Group. The new piggery was finished in 1916. Building A of the West Group was occupied a short time after Dr. Frost's death. Great progress was made in the development of the institution while it was under his supervision, and the accomplishments of the hospital during this period of time must be attributed very largely to the efforts of Dr. Frost. His death was a loss to the institution and to the State.

MOVEMENT OF POPULATION.

On Sept. 30, 1917, 1,795 patients, 822 men and 973 women, were in the custody of the institution. Of this number, 673 men and 792 women, a total of 1,465, were in the wards of the hospital; 11 women boarding out; 174, 75 men and 99 women,

at home on visit; and 18, 13 men and 5 women, out on escape. Of the total number in the institution, there were 61 men and 66 women, 127 in all, in the psychopathic department. This includes 13 men and 19 women, a total of 32, at home on visit.

Two thousand one hundred and ninety-eight patients were admitted during the year. Of these, 1,167 were men and 1,031 women. There were 1,742 first admissions, 917 men and 825 women; 442 readmissions, 246 men and 196 women; and 14 transfers from other institutions, including 4 men and 10 women.

One thousand seven hundred and fifty-five cases, including 961 men and 794 women, were dismissed during the year. Of this number, 65 were discharged as recovered, 372 as improved, 911 as unimproved, and 407 as not insane.

Six men and 11 women, a total of 17, were transferred to other institutions.

One hundred and seventy-eight men and 124 women, a total of 302, died during the year.

The census of the institution on Sept. 30, 1918, was as follows: number of patients in the custody of the institution, 844 men and 1,075 women, a total of 1,919. Of this number, 245, 124 men and 121 women, were at home on visit; 11, 9 men and 2 women, out on escape; and 8 women boarding out. One thousand seven hundred and seventy-five, 793 men and 982 women, were in the custody of the hospital department. Of this number, 198, 106 men and 92 women, were at home on visit; 11, 9 men and 2 women, out on escape; and 8 women boarding out. One hundred and thirty-six, 51 men and 85 women, were in the custody of the psychopathic department. Of this number, 47, 18 men and 29 women, were at home on visit.

The whole number of cases treated during the year was 3,993, 1,989 men and 2,004 women.

The average daily population for the year was as follows: hospital, 681.83 men, 829.89 women, total, 1,511.72; psychopathic department, 43.90 men, 41.71 women, total, 85.61; total, 725.73 men and 871.60 women, or 1,597.33 for the entire institution.

The average daily number in family care was: hospital, no men, 8.11 women, total, 8.11; psychopathic department, none; or 8.11 women for the entire institution.

The average daily number (for nine months) home on visit was: hospital, 106.19 men, 113.16 women, total, 219.35; psychopathic department, 21.52 men, 30.13 women, total, 51.65; total, 127.71 men and 143.29 women, or 271 for the entire institution.

The average daily number (for nine months) out on escape was: hospital, 10.90 men, 1.54 women, total, 12.44; psychopathic department, none; total, 10.90 men and 1.54 women, or 12.44 for the entire institution.

The average daily number of voluntary patients was: hospital, 10.94 men, 11.20 women, total, 22.14; psychopathic department, 8.57 men, 8.46 women, total, 17.03; total, 19.51 men and 19.66 women, or 39.17 for the entire institution.

The average daily number of temporary care cases was: hospital, none; psychopathic department, 21.49 men, 15.51 women, total, 37; total, 21.49 men and 15.51 women, or 37 for the entire institution.

The average daily number of reimbursing cases was: 33.16 men, 90.56 women, total, 123.72.

The average daily number of private cases was: 12.31 men, 57.85 women, total, 70.16.

The death rate, based on the number of first admissions, was 17.34 per cent; based on the total number cared for during the year, 7.56 per cent; and based on the average daily population, 18.91 per cent.

Of the first admissions, 757, or 43.51 per cent, were foreign born, and 1,162, or 66.70 per cent, were of foreign parentage on one or both sides. The average age on admission was 38.52. Two hundred and thirty-six, or 13.54 per cent, were sixty years of age or over.

Of the first admissions, 75 men and 108 women, a total of 183, were committed under the provisions of section 30, chapter 504 of the Acts of 1909. There were 241 voluntary cases, 131 men and 110 women, admitted under the provisions of section 45, chapter 504 of the Acts of 1909. One thousand and eighty-six temporary care cases, 542 men and 544 women, were ad-

mitted under the provisions of chapter 174 of the General Acts of 1915. One hundred and sixty-two cases, 115 men and 47 women, were admitted under the provisions of chapter 307 of the Acts of 1910, authorizing the admission of patients at the request of the Boston police department. Ten, 5 men and 5 women, were committed for observation pending the determination of insanity, under the provisions of section 43 of chapter 504 of the Acts of 1909. Six, 4 men and 2 women, were committed pending examination and hearing by the courts, under the provisions of section 34 of chapter 504 of the Acts of 1909. Three emergency cases, 1 man and 2 women, were admitted on the certificate of physicians, under the provisions of section 42 of chapter 504 of the Acts of 1909. Twenty-four cases, 17 men and 7 women, held under complaint or indictment, were committed under the provisions of chapter 46 of the General Acts of 1917.

The forms of mental diseases shown in all first admissions briefly summarized were as follows: traumatic psychoses, 6, or .34 per cent; senile psychoses, 81, or 4.65 per cent; general paralysis, 142, or 8.15 per cent; alcoholic psychoses, 117, or 6.71 per cent; manic-depressive psychoses, 137, or 7.86 per cent; involution melancholia, 20, or 1.15 per cent; dementia præcox, 415, or 23.82 per cent; paranoia or paranoic conditions, 53, or 3.04 per cent; epileptic psychoses, 25, or 1.44 per cent; psychoneuroses, 57, or 3.27 per cent; psychoses with constitutional psychopathic inferiority, 2, or .11 per cent; psychoses with mental deficiency, 3, or .17 per cent; undiagnosed psychoses, 98, or 5.63 per cent; not insane, 340, or 19.52 per cent (psychopathic department).

The etiological factors shown in the first admissions were as follows: heredity, 432, or 24.80 per cent; alcoholism, 191, or 10.96 per cent; arteriosclerosis, 118, or 6.77 per cent; epilepsy, 48, or 2.76 per cent; involutional changes, 11, or .63 per cent; traumatism, 36, or 2.07 per cent.

The movement of population of the institution for the year as shown by departments was as follows: —

HOSPITAL.

	Males.	Females.	Totals.
1. On books, Oct. 1, 1917,	761	907	1,668
Admissions during year: —			
(a) First admissions,	75	106	181
(b) Readmissions,	29	30	59
(c) Readmissions (transferred from psychopathic department),	140	130	270
(d) Transferred from other institutions for insane,	4	0	13
2. Total received during year,	248	275	523
3. Total under treatment during year,	1,009	1,182	2,191
Discharged from books during year: —			
(a) As recovered,	13	17	30
(b) As improved,	46	55	101
(c) As unimproved,	15	12	27
(d) As not insane,	—	—	—
(e) Transferred to other institutions for insane,	4	4	8
(f) Died during year,	139	102	241
4. Total discharged and died during year,	217	190	407
5. Insane patients on books Sept. 30, 1918,	793	990	1,783

PSYCHOPATHIC DEPARTMENT.

1. On books Oct. 1, 1917,	61	66	127
Admissions during year: —			
(a) First admissions,	842	719	1,561
(b) Readmissions,	217	166	383
Total admissions,	1,059	885	1,944
(c) Transfers from other institutions for insane,	—	1	1
2. Total received during year,	1,059	886	1,945
3. Total under treatment during year,	1,120	952	2,072
Discharged from books during year: —			
(a) As recovered,	24	11	35
(b) As improved,	175	96	271
(c) As unimproved,	501	383	884
(d) As not insane,	187	220	407
(e) Transferred to other institutions for insane,	2	7	9
(f) To hospital department of Boston State Hospital,	140	130	270
(g) Died during year,	39	22	61
4. Total discharged and died during year,	1,068	869	1,937
5. Insane patients on books Sept. 30, 1918,	51	85	136

The legal status of all first admissions by departments was as follows:—

HOSPITAL.

	Males.	Females.	Totals.
Committed (section 30, chapter 504, Acts of 1909), . . .	73	104	177
Voluntary (section 45, chapter 504, Acts of 1909), . . .	1	—	1
Emergency (section 42, chapter 504, Acts of 1909), . . .	—	1	1
Under complaint or indictment (chapter 46, General Acts of 1917).	1	1	2
Total,	75	106	181

PSYCHOPATHIC DEPARTMENT.

Committed (section 30, chapter 504, Acts of 1909), . . .	2	4	6
Voluntary (section 45, chapter 504, Acts of 1909), . . .	130	110	240
Temporary care (chapter 174, General Acts of 1915), . . .	542	544	1,086
Boston police (chapter 307, Acts of 1910),	115	47	162
Observation cases (section 43, chapter 504, Acts of 1909), . .	5	5	10
Cases pending examination and hearing (section 34, chapter 504, Acts of 1909).	4	2	6
Emergency (section 42, chapter 504, Acts of 1909), . . .	1	1	2
Under indictment (chapter 46, General Acts of 1917), . . .	16	6	22
Military and naval cases (chapter 142, General Acts of 1918), .	27	—	27
Total,	842	719	1,561

The psychoses represented by all first admissions for the institution are shown in the statistical tables on page 110. The psychoses represented by all first admissions during the year as summarized by departments were as follows:—

HOSPITAL.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
1. Traumatic psychoses,				2	-	2
(a) Traumatic delirium,	2	-	2			
2. Senile psychoses,				15	33	48
(a) Simple deterioration,	4	27	31			
(b) Presbyophrenic type,	5	-	5			
(c) Delirious and confused states,	1	1	2			
(d) Depressed and agitated states,	1	1	2			
(e) Paranoid states,	4	4	8			
3. Psychoses with cerebral arteriosclerosis,				17	28	45
4. General paralysis,				11	4	15
5. Psychoses with cerebral syphilis,				2	1	3
7. Psychoses with brain tumor,				1	1	2
8. Psychoses with other brain or nervous diseases,				-	1	1
Tabes dorsalis,	-	1	1			
9. Alcoholic psychoses,				7	2	9
(c) Korsakow's psychosis,	1	1	2			
(d) Acute hallucinosis,	1	-	1			
(h) Alcoholic deterioration,	3	1	4			
(i) Other types,	2	-	2			
10. Psychoses due to drugs and other exogenous toxins,				-	1	1
(a) Opium, etc.,	-	1	1			
12. Psychoses with other somatic diseases,				5	1	6
(f) Cardiorenal diseases,	4	-	4			
(g) Other diseases or conditions:—						
Pernicious anemia,	1	-	1			
Diabetes mellitus,	-	1	1			
13. Manic-depressive psychoses,				1	2	3
(a) Manic type,	-	2	2			
(b) Depressive type,	1	-	1			
14. Involution melancholia,				-	6	6
15. Dementia præcox,				9	11	20
(a) Paranoid type,	5	5	10			
(b) Katatonic type,	2	3	5			
(c) Hebephrenic type,	1	3	4			
(d) Simple type,	1	-	1			
16. Paranoia or paranoic conditions,				-	9	9
18. Psychoneuroses and neuroses,				-	1	1
(a) Hysterical type,	-	1	1			
19. Psychoses with constitutional psychopathic inferiority.				-	2	2
20. Psychoses with mental deficiency,				1	-	1
22. Not insane,				3	3	6
(d) Constitutional psychopathic inferiority without psychosis,	2	-	2			
(e) Mental deficiency without psychosis,	1	1	2			
(f) Others:—						
Cardiorenal disease,	-	1	1			
Graves' disease,	-	1	1			
23. No diagnosis,				1	-	1
Total,				75	106	181

PSYCHOPATHIC DEPARTMENT.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
1. Traumatic psychoses,				4	-	4
(b) Traumatic constitution,	2	-	2			
(c) Post-traumatic mental enfeeblement (dementia).	2	-	2			
2. Senile psychoses,				11	22	33
(a) Simple deterioration,	8	17	25			
(c) Delirious and confused states,	1	1	2			
(d) Depressed and agitated states,	-	1	1			
(e) Paranoid states,	2	3	5			
3. Psychoses with cerebral arteriosclerosis,				37	25	62
4. General paralysis,				110	17	127
5. Psychoses with cerebral syphilis,				13	13	26
6. Psychoses with Huntington's chorea,				1	-	1
7. Psychoses with brain tumor,				1	-	1
8. Psychoses with other brain or nervous diseases,				8	9	17
Acute chorea,	1	2	3			
Organic brain disease,	6	7	13			
Bullet wound of brain,	1	-	1			
9. Alcoholic psychoses,				87	21	108
(b) Delirium tremens,	32	7	39			
(c) Korsakow's psychosis,	6	5	11			
(d) Acute hallucinosis,	29	9	38			
(e) Chronic hallucinosis,	5	-	5			
(f) Acute paranoid type,	1	-	1			
(g) Chronic paranoid type,	2	-	2			
(h) Alcoholic deterioration,	12	-	12			
10. Psychoses due to drugs and other exogenous toxins,				2	-	2
(a) Opium, etc.,	1	-	1			
(d) Others:—						
Trinitrotoluol,	1	-	1			
11. Psychoses with pellagra,				-	1	1
12. Psychoses with other somatic diseases,				19	16	35
(a) Delirium with infectious diseases,	8	11	19			
(b) Post-infectious psychoses,	-	2	2			
(c) Exhaustion delirium,	2	-	2			
(f) Cardioresnal diseases,	7	2	9			
(h) Other diseases or conditions:—						
With diabetes,	1	-	1			
With tubercular meningitis,	1	-	1			
With goitre,	-	1	1			
13. Manic-depressive psychoses,				60	74	134
(a) Manic type,	23	26	49			
(b) Depressive type,	34	34	68			
(d) Mixed type,	3	14	17			
14. Involution melancholia,				4	10	14
15. Dementia præcox,				204	191	395
(a) Paranoid type,	112	104	216			
(b) Katatonic type,	34	28	62			
(c) Hebephrenic type,	49	55	104			
(d) Simple type,	9	4	13			
16. Paranoia or paranoic conditions,				21	23	44
17. Epileptic psychoses,				18	7	25
(a) Deterioration,	8	6	14			
(b) Clouded states,	10	1	11			

PSYCHOPATHIC DEPARTMENT — *Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
18. Psychoneuroses and neuroses,				25	31	56
(a) Hysterical type,	12	20	32			
(b) Psychasthenic type,	7	5	12			
(c) Neurasthenic type,	6	6	12			
20. Psychoses with mental deficiency,				1	1	2
21. Undiagnosed psychoses,				48	50	98
22. Not insane,				146	188	334
(a) Epilepsy without psychosis,	12	17	29			
(b) Alcoholism without psychosis,	24	10	34			
(c) Drug addiction without psychosis,	2	1	3			
(d) Constitutional psychopathic inferiority without psychosis,	39	86	125			
(e) Mental deficiency without psychosis,	41	52	93			
(f) Others:—						
Organic brain disease,	5	3	8			
Organic cord disease,	1	—	1			
Brain tumor,	1	—	1			
Tabes dorsalis,	1	—	1			
Headaches,	1	—	1			
Arteriosclerosis,	8	2	10			
Syphilis,	2	—	2			
Epidemic cerebrospinal meningitis,	1	—	1			
Neurosyphilis,	1	1	2			
Cardiorenal disease,	1	—	1			
Conduct disorder,	4	11	15			
Suicidal attempt,	1	—	1			
Hysteria,	—	1	1			
Graves' disease,	—	2	2			
Multiple sclerosis,	—	1	1			
Depression,	—	1	1			
Chorea,	1	—	1			
23. No diagnosis,				22	20	42
Total,				842	719	1,561

The psychoses of all first admissions classified according to legal status as summarized by departments were as follows:—

HOSPITAL.

Committed Cases (Section 30, Chapter 504, Acts of 1909).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
1. Traumatic psychoses,				2	-	2
(a) Traumatic delirium,	2	-	2			
2. Senile psychoses,				15	33	48
(a) Simple deterioration,	4	27	31			
(b) Presbyophrenic type,	5	-	5			
(c) Delirious and confused states,	1	1	2			
(d) Depressed and agitated states,	1	1	2			
(e) Paranoid states,	4	4	8			
3. Psychoses with cerebral arteriosclerosis,				17	27	44
4. General paralysis,				11	4	15
5. Psychoses with cerebral syphilis,				2	1	3
7. Psychoses with brain tumor,				1	1	2
8. Psychoses with other brain or nervous diseases,				-	1	1
Tabes dorsalis,	-	1	1			
9. Alcoholic psychoses,				5	2	7
(c) Korsakow's psychosis,	1	1	2			
(h) Alcoholic deterioration,	3	1	4			
(i) Other types,	1	-	1			
10. Psychoses due to drugs and other exogenous toxins,				-	1	1
(a) Opium, etc.,	-	1	1			
12. Psychoses with other somatic diseases,				5	1	6
(f) Cardiorenal diseases,	4	-	4			
(g) Other diseases or conditions:—						
Pernicious anemia,	1	-	1			
Diabetes mellitus,	-	1	1			
13. Manic-depressive psychoses,				1	2	3
(a) Manic type,	-	2	2			
(b) Depressive type,	1	-	1			
14. Involution melancholia,				-	5	5
15. Dementia præcox,				9	11	20
(a) Paranoid type,	5	5	10			
(b) Katatonic type,	2	3	5			
(c) Hebephrenic type,	1	3	4			
(d) Simple type,	1	-	1			
16. Paranoia or paranoic conditions,				-	9	9
18. Psychoneuroses and neuroses,				-	1	1
(a) Hysterical type,	-	1	1			
19. Psychoses with constitutional psychopathic inferiority,				-	2	2
20. Psychoses with mental deficiency,				1	-	1
22. Not insane,				3	3	6
(d) Constitutional psychopathic inferiority without psychosis,	2	-	2			
(e) Mental deficiency without psychosis,	1	1	2			
(f) Others:—						
Cardiorenal disease,	-	1	1			
Graves' disease,	-	1	1			
23. No diagnosis,				1	-	1
Total,				73	104	177

HOSPITAL — *Concluded.**Voluntary Cases (Section 45, Chapter 504, Acts of 1909).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
9. Alcoholic psychoses,	1	-	1	1	-	1
(i) Other types,	1	-	1			

Emergency Cases (Section 42, Chapter 504, Acts of 1909).

3. Psychosis with cerebral arteriosclerosis,	-	1	1
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Cases under Complaint or Indictment (Chapter 46, General Acts of 1917).

9. Alcoholic psychoses,	1	-	1
(d) Acute hallucinosis,	1	-	1
4. Involution melancholia,	-	1	1
Total,	1	1	2

PSYCHOPATHIC DEPARTMENT.

Committed Cases (Section 30, Chapter 504, Acts of 1909).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
2. Senile psychoses,	-	1	1	-	1	1
(e) Paranoid states,	-	1	1			
9. Alcoholic psychoses,	1	1	2	1	1	2
(c) Korsakow's psychosis,	1	-	1			
(d) Acute hallucinosis,	1	-	1			
3. Manic-depressive psychoses,	-	1	1	-	1	1
(b) Depressive type,	-	1	1			
5. Dementia præcox,	1	1	2	1	1	2
(a) Paranoid type,	1	1	2			
Total,	2	4	6	2	4	6

Voluntary Cases (Section 45, Chapter 504, Acts of 1909).

1. Traumatic psychoses,	1	-	1	1	-	1
(c) Post-traumatic mental enfeeblement (dementia),	1	-	1			
2. Senile psychoses,	1	2	3	1	2	3
(a) Simple deterioration,	1	1	2			
(e) Paranoid states,	1	1	2			

PSYCHOPATHIC DEPARTMENT—*Continued.**Voluntary Cases, etc.—Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
3. Psychoses with cerebral arteriosclerosis, . . . . .	. . .	. . .	. . .	5	3	8
4. General paralysis, . . . . .	. . .	. . .	. . .	20	1	21
5. Psychoses with cerebral syphilis, . . . . .	. . .	. . .	. . .	1	5	6
8. Psychoses with other brain or nervous diseases, Organic brain diseases,	3	—	3	3	—	3
9. Alcoholic psychoses, . . . . .	. . .	. . .	. . .	8	1	9
(b) Delirium tremens,	2	—	2			
(d) Acute hallucinosis,	1	—	1			
(f) Acute paranoid type,	3	1	4			
(h) Alcoholic deterioration,	1	—	1			
(i) Other types,	1	—	1			
11. Psychoses with pellagra, . . . . .	. . .	. . .	. . .	—	1	1
13. Manic-depressive psychoses, . . . . .	. . .	. . .	. . .	4	9	13
(a) Manic type,	—	1	1			
(b) Depressive type,	4	6	10			
(d) Mixed type,	—	2	2			
15. Dementia præcox, . . . . .	. . .	. . .	. . .	23	19	42
(a) Paranoid type,	13	13	26			
(c) Hebephrenic type,	8	5	13			
(d) Simple type,	2	1	3			
16. Paranoia or paranoic conditions, . . . . .	. . .	. . .	. . .	5	2	7
17. Epileptic psychoses, . . . . .	. . .	. . .	. . .	—	1	1
(a) Deterioration,	—	1	1			
18. Psychoneuroses and neuroses, . . . . .	. . .	. . .	. . .	9	8	17
(a) Hysterical type,	4	5	9			
(b) Psychasthenic type,	3	2	5			
(c) Neurasthenic type,	2	1	3			
21. Undiagnosed psychoses, . . . . .	. . .	. . .	. . .	6	10	16
22. Not insane, . . . . .	. . .	. . .	. . .	37	42	79
(a) Epilepsy without psychosis,	3	3	6			
(b) Alcoholism without psychosis,	8	2	10			
(c) Drug addiction without psychosis,	1	1	2			
(d) Constitutional psychopathic inferiority with- out psychosis,	9	18	27			
(e) Mental deficiency without psychosis,	7	9	16			
(f) Others:—						
Headaches,	1	—	1			
Arteriosclerosis,	2	1	3			
Syphilis,	1	—	1			
Neurosyphilis,	1	—	1			
Organic cord disease,	1	—	1			
Hysteria,	—	1	1			
Graves' disease,	—	1	1			
Multiple sclerosis,	—	1	1			
Depression,	—	1	1			
Conduct disorder,	—	3	3			
Organic brain disease,	3	1	4			
23. No diagnosis, . . . . .	. . .	. . .	. . .	7	6	13
Total, . . . . .	. . .	. . .	. . .	130	110	240

PSYCHOPATHIC DEPARTMENT — *Continued.**Temporary care Cases (Chapter 174, General Acts of 1915).*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
1. Traumatic psychoses,				3	-	3
(b) Traumatic constitution,	2	-	2			
(c) Post-traumatic mental enfeeblement (dementia).	1	-	1			
2. Senile psychoses,				8	18	26
(a) Simple deterioration,	7	16	23			
(c) Delirious and confused state,	1	1	2			
(e) Paranoid states,	-	1	1			
3. Psychoses with cerebral arteriosclerosis,				31	18	49
4. General paralysis,				69	12	81
5. Psychoses with cerebral syphilis,				12	8	20
6. Psychoses with Huntington's chorea,				1	-	1
7. Psychoses with brain tumor,				1	-	1
8. Psychoses with other brain or nervous diseases,				3	8	11
Organic brain disease,	2	6	8			
Bullet wound of brain,	1	-	1			
Acute chorea,	-	2	2			
9. Alcoholic psychoses,				44	16	60
(b) Delirium tremens,	17	6	23			
(c) Korsakow's psychosis,	4	4	8			
(d) Acute hallucinosis,	11	6	17			
(e) Chronic hallucinosis,	3	-	3			
(f) Acute paranoid type,	1	-	1			
(g) Chronic paranoid type,	1	-	1			
(h) Alcoholic deterioration,	7	-	7			
10. Psychoses due to drugs, etc.,				2	-	2
(a) Opium, etc.,	1	-	1			
(d) Other exogenous toxins:—						
Trinitrotoluol,	1	-	1			
12. Psychoses with other somatic diseases,				16	16	32
(a) Delirium with infectious disease,	7	11	18			
(b) Post-infectious psychosis,	-	2	2			
(c) Exhaustion delirium,	1	-	1			
(f) Cardiorrenal diseases,	6	2	8			
(g) Other diseases or conditions:—						
Tubercular meningitis,	1	-	1			
Diabetes mellitus,	1	-	1			
Goitre,	-	1	1			
13. Manic-depressive psychoses,				44	60	104
(a) Manic type,	14	22	36			
(b) Depressive type,	27	26	53			
(d) Mixed type,	3	12	15			
14. Involution melancholia,				4	10	14
15. Dementia præcox,				138	150	288
(a) Paranoid type,	72	75	147			
(b) Katatonic type,	29	25	54			
(c) Hebephrenic type,	31	48	79			
(d) Simple type,	6	2	8			
16. Paranoia or paranoic conditions,				8	18	26
17. Epileptic psychoses,				13	5	18
(a) Deterioration,	5	4	9			
(b) Clouded states,	8	1	9			

PSYCHOPATHIC DEPARTMENT — *Continued.**Temporary care Cases, etc. — Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
18. Psychoneuroses and neuroses,				11	22	33
(a) Hysterical type,	5	14	19			
(b) Psychasthenic type,	4	3	7			
(c) Neurasthenic type,	2	5	7			
20. Psychoses with mental deficiency,				—	1	1
21. Undiagnosed psychoses,				35	37	72
22. Not insane,				86	133	219
(a) Epilepsy without psychosis,	8	13	21			
(b) Alcoholism without psychosis,	7	8	15			
(c) Drug addiction without psychosis,	1	—	1			
(d) Constitutional psychopathic inferiority without psychosis,	25	60	85			
(e) Mental deficiency without psychosis,	27	41	68			
(f) Others:—						
Arteriosclerosis,	5	1	6			
Syphilis,	1	—	1			
Organic brain disease,	2	2	4			
Epidemic cerebrospinal meningitis,	1	—	1			
Cardiorenal disease,	1	—	1			
Conduct disorder,	4	6	10			
Suicidal attempt,	1	—	1			
Brain tumor,	1	—	1			
Tabes dorsalis,	1	—	1			
Chorea,	1	—	1			
Graves' disease,	—	1	1			
Neurosyphilis,	—	1	1			
23. No diagnosis,				13	12	25
Total,				542	544	1,086

Boston Police Cases (Chapter 307, Acts of 1910).

2. Senile psychoses,				2	—	2
(a) Simple deterioration,	1	—	1			
(e) Paranoid states,	1	—	1			
3. Psychoses with cerebral arteriosclerosis,				2	4	6
4. General paralysis,				16	4	20
8. Psychoses with other brain or nervous diseases,				1	—	1
Organic brain disease,	1	—	1			
9. Alcoholic psychoses,				28	3	31
(b) Delirium tremens,	12	1	13			
(c) Korsakow's psychosis,	1	—	1			
(d) Acute hallucinosis,	9	2	11			
(e) Chronic hallucinosis,	2	—	2			
(g) Chronic paranoid type,	1	—	1			
(h) Alcoholic deterioration,	3	—	3			
12. Psychoses with other somatic diseases,				2	—	2
(a) Delirium with infectious disease,	1	—	1			
(f) Cardiorenal disease,	1	—	1			
13. Manic-depressive psychoses,				5	3	8
(a) Manic type,	5	2	7			
(b) Depressive type,	—	1	1			

PSYCHOPATHIC DEPARTMENT — *Continued.**Boston Police Cases, etc. — Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
15. Dementia præcox,	14	13	27	26	17	43
(a) Paranoid type,	4	2	6			
(b) Katatonic type,	7	2	9			
(c) Hebephrenic type,	1	—	1			
(d) Simple type,						
16. Paranoia or paranoic conditions,				4	3	7
17. Epileptic psychoses,				3	1	4
(a) Deterioration,	1	1	2			
(b) Clouded states,	2	—	2			
18. Psychoneuroses and neuroses,				2	—	2
(a) Hysterical type,	2	—	2			
20. Psychoses with mental deficiency,				1	—	1
21. Undiagnosed psychoses,				5	2	7
22. Not insane,				16	8	24
(a) Epilepsy without psychosis,	1	1	2			
(b) Alcoholism without psychosis,	6	—	6			
(d) Constitutional psychopathic inferiority with- out psychosis,	4	4	8			
(e) Mental deficiency without psychosis,	5	2	7			
(f) Others:— Conduct disorder,	—	1	1			
23. No diagnosis,				2	2	4
Total,				115	47	162

Observation Cases (Section 43, Chapter 504, Acts of 1909).

2. Senile psychoses,	—	1	1	—	1	1
(d) Depressed and agitated states,	—	1	1			
8. Psychoses with other brain or nervous diseases,	—	1	1	—	1	1
Organic brain disease,						
9. Alcoholic psychoses,	1	—	1	1	—	1
(h) Alcoholic deterioration,						
13. Manic-depressive psychoses,	1	—	1	1	—	1
(a) Manic type,						
15. Dementia præcox,	—	1	1	—	2	2
(b) Katatonic type,	—	1	1			
(d) Simple type,	—	1	1			
22. Not insane,	2	—	2	3	1	4
(b) Alcoholism without psychosis,	—	1	1			
(d) Constitutional psychopathic inferiority with- out psychosis,						
(f) Others:— Arteriosclerosis,	1	—	1			
Total,				5	5	10

PSYCHOPATHIC DEPARTMENT — *Continued.*

Cases pending Examination and Hearing (Section 34, Chapter 504, Acts of 1909).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
15. Dementia præcox,				2	1	3
(a) Paranoid type,	1	1	2			
(c) Hebephrenic type,	1	-	1			
17. Epileptic psychoses,				1	-	1
(a) Deterioration,	1	-	1			
22. Not insane,				1	1	2
(e) Mental deficiency without psychosis,	1	-	1			
(f) Others:—						
Conduct disorder,	-	1	1			
Total,				4	2	6

Emergency Cases (Section 42, Chapter 504, Acts of 1909).

3. Psychoses with cerebral arteriosclerosis,				-	1	1
4. General paralysis,				1	-	1
21. Undiagnosed psychoses,				-	1	1
Total,				1	2	3

Cases under Complaint or Indictment (Chapter 46, General Acts of 1917).

4. General paralysis,				3	-	3
9. Alcoholic psychoses,				4	-	4
(b) Delirium tremens,	1	-	1			
(d) Acute hallucinosis,	3	-	3			
13. Manic-depressive psychoses,				-	1	1
(a) Manic type,	-	1	1			
15. Dementia præcox,				2	1	3
(a) Paranoid type,	2	1	3			
16. Paranoia or paranoic conditions,				3	-	3
17. Epileptic psychoses,				1	-	1
(a) Deterioration,	1	-	1			
18. Psychoneuroses and neuroses,				1	1	2
(a) Hysterical type,	-	1	1			
(c) Neurasthenic type,	1	-	1			
22. Not insane,				2	3	5
(b) Alcoholism without psychosis,	1	-	1			
(d) Constitutional psychopathic inferiority without psychosis,	1	3	4			
Total,				16	6	22

PSYCHOPATHIC DEPARTMENT — *Concluded.*
Military and Naval Cases (Chapter 142, General Acts of 1918).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
8. Psychoses with other brain or nervous diseases, Acute chorea,	1	-	1	1	-	1
9. Alcoholic psychoses, (d) Acute hallucinosis,	1	-	1	1	-	1
12. Psychoses with other somatic diseases, (c) Exhaustion delirium,	1	-	1	1	-	1
13. Manic-depressive psychoses, (a) Manic type, (b) Depressive type,	3 3	- -	3 3	6	-	6
15. Dementia præcox, (a) Paranoid type, (b) Katatonic type, (c) Hebephrenic type,	9 1 2	- - -	9 1 2	12	-	12
16. Paranoia or paranoic conditions,				1	-	1
18. Psychoneuroses and neuroses, (a) Hysterical type, (c) Neurasthenic type,	1 1	- -	1 1	2	-	2
21. Undiagnosed psychoses,				2	-	2
22. Not insane, (e) Mental deficiency without psychosis,	1	-	1	1	-	1
Total,				27	-	27

The psychoses represented by the total number of cases discharged from the institution during the year are shown in Table 15, on page 127. The psychoses represented by cases discharged during the year as summarized by departments were as follows: —

HOSPITAL.

	Males.	Females.	Totals.
2. Senile psychoses,	1	4	5
3. Psychoses with cerebral arteriosclerosis,	7	2	9
4. General paralysis,	5	1	6
5. Psychoses with cerebral syphilis,	1	1	2
9. Alcoholic psychoses,	13	12	25
11. Psychoses with pellagra,	1	-	1
12. Psychoses with other somatic diseases,	-	5	5

HOSPITAL — *Concluded.*

	Males.	Females.	Totals.
13. Manic-depressive psychoses,	14	29	43
14. Involution melancholia,	—	2	2
15. Dementia præcox,	25	22	47
16. Paranoia or paranoic conditions,	2	3	5
18. Psychoneuroses and neuroses,	—	1	1
19. Psychoses with constitutional psychopathic inferiority, .	2	—	2
20. Psychoses with mental deficiency,	1	1	2
21. Undiagnosed psychoses,	2	1	3
Total,	74	84	158

PSYCHOPATHIC DEPARTMENT.

1. Traumatic psychoses,	4	—	4
2. Senile psychoses,	7	13	20
3. Psychoses with cerebral arteriosclerosis,	27	17	44
4. General paralysis,	122	16	138
5. Psychoses with cerebral syphilis,	14	11	25
7. Psychoses with brain tumor,	1	1	2
8. Psychoses with other brain or nervous diseases, . . .	10	6	16
9. Alcoholic psychoses,	100	23	123
10. Psychoses due to drugs and other exogenous toxins, .	1	1	2
12. Psychoses with other somatic diseases,	7	12	19
13. Manic-depressive psychoses,	67	84	151
14. Involution melancholia,	3	8	11
15. Dementia præcox,	206	173	379
16. Paranoia or paranoic conditions,	24	22	46
17. Epileptic psychoses,	22	16	38
18. Psychoneuroses and neuroses,	18	25	43
20. Psychoses with mental deficiency,	—	3	3
21. Undiagnosed psychoses,	48	41	89
22. Not insane,	187	216	403
23. No diagnosis,	19	22	41
Total,	887	710	1,597

The psychoses represented by deaths occurring in the institution during the year are shown in Tables 16, 17 and 18

on pages 128 to 135. The psychoses represented by deaths occurring during the year as summarized by departments were as follows: —

HOSPITAL.

	Males.	Females.	Totals.
1. Traumatic psychoses,	1	—	1
2. Senile psychoses,	6	29	35
3. Psychoses with cerebral arteriosclerosis,	35	21	56
4. General paralysis,	50	8	58
5. Psychoses with cerebral syphilis,	1	1	2
6. Psychoses with Huntington's chorea,	—	2	2
9. Alcoholic psychoses,	5	1	6
10. Psychoses due to drugs and other exogenous toxins,	2	—	2
12. Psychoses with other somatic diseases,	5	2	7
13. Manic-depressive psychoses,	—	10	10
14. Involution melancholia,	2	4	6
15. Dementia præcox,	25	19	44
16. Paranoia or paranoic conditions,	—	2	2
17. Epileptic psychoses,	5	—	5
21. Undiagnosed psychoses,	—	2	2
22. Not insane,	2	1	3
Total,	139	102	241

PSYCHOPATHIC DEPARTMENT.

2. Senile psychoses,	1	1	2
3. Psychoses with cerebral arteriosclerosis,	6	2	8
4. General paralysis,	7	—	7
5. Psychoses with cerebral syphilis,	—	1	1
8. Psychoses with other brain or nervous diseases,	1	5	6
9. Alcoholic psychoses,	1	1	2
10. Psychoses due to drugs and other exogenous toxins,	5	8	13
12. Psychoses with other somatic diseases,	5	—	5
13. Manic-depressive psychoses,	1	3	4
15. Dementia præcox,	1	1	2
17. Epileptic psychoses,	1	—	1
21. Undiagnosed psychoses,	8	—	8
22. Not insane,	2	—	2
Total,	39	22	61

GENERAL HEALTH OF THE HOSPITAL.

The general health of the institution during the year has been good. In accordance with the requirements of the Commission on Mental Diseases, it has been customary to immunize all patients and employees to typhoid fever. Owing to the presence of a mild epidemic of smallpox in the city, and on the recommendation of the board of health of Boston, the patients and employees in the institution were vaccinated for smallpox during the early part of the year. There was the usual number of unavoidable accidents and injuries. The hospital suffered severely from the epidemic of influenza, which was prevalent in Boston during the months of September, October and November, 1918. Three hundred and twenty-eight cases were reported in all. Of these, 252 were in the hospital and 76 in the psychopathic department. In the hospital 5 physicians, 72 employees and 175 patients contracted the disease. Twenty-six men and 7 women had pneumonia following the influenza. Three male and 1 female employees and 15 male and 4 female patients died. At the psychopathic department 9 student internes and the wives of two of the physicians contracted influenza. The wife of one of the physicians died. There were 20 cases among the employees, and 45 among the patients. The number of deaths at the psychopathic department was 18. On November 30 there were no cases remaining in the hospital and only two at the psychopathic department. At the first evidence of an epidemic the employees of the hospital were vaccinated, the vaccine prepared by Dr. Timothy Leary of Tufts Medical School being used. Later, vaccine was prepared in our own laboratory, and at the earliest opportunity all of the patients were immunized, and excellent results were obtained.

EMPLOYEES.

The maintenance of an adequate force of employees in the various departments of the hospital has continued to be a serious problem. There were 433 persons employed at the institution on Nov. 30, 1917. During the year 1,113 employees were appointed, 1,044 resigned, and 110 were discharged. One thousand five hundred and forty-six persons occupied 468

positions, the percentage of changes being 235, a rotation of 2.35. This shortage of employees is to be attributed to various causes. While it is doubtless due in part to wartime conditions, it must be borne in mind that this difficulty existed before the war commenced. It has been due very largely to the fact that higher wages are paid for similar services in the community at large. The prevailing rate of wages must be considered if we are to maintain an adequate force of employees in the hospital. To meet these difficulties, the Commission has authorized several increases. These have necessitated additional expenditures and have resulted in a cost of personal service which would not have been considered justifiable a few years ago. Notwithstanding these increases, it has not been possible for us to maintain a sufficient force of nurses and attendants on the wards to insure the proper care of patients and to maintain the standards which have been considered so important heretofore. The hours of service are long, the nature of the occupation is not attractive to many, and the wages paid are in many instances lower than those offered by others. The average daily number of employees during the past nine months was 404.58, with 48.42 vacancies. The average number of vacancies in the ward service was 37.04, a shortage of 14.76 per cent. This means inevitably that the standard of care has been lowered. It has not been possible to maintain ward industries and employ the number of patients who have usually been engaged in occupations. It has compelled us to use more restraint and seclusion for the protection of the patients themselves. It has been impossible at times to take the patients out of doors for exercise when they should have gone. It has seriously interfered with the operation of the hospital on visiting days, when a large number of relatives and friends of patients seek admission. There is no question but that the shortage of nurses and attendants in the wards has been responsible for an increase in the number of accidents, injuries and escapes. Under these difficult circumstances the members of the medical staff have completed a hard year in a way which is worthy of commendation.

MEDICAL SERVICE.

Dr. Ermy C. Noble was appointed assistant superintendent on Dec. 1, 1917, to succeed Dr. Samuel W. Crittenden, retired. Dr. Noble received the degrees of M.D. and C.M. from McGill University in 1907. He was appointed assistant physician at the Boston State Hospital March 15, 1909, and has been continuously in the service since that time. Dr. Dora W. Faxon was promoted to senior assistant physician on May 8, 1918. Dr. Mary E. Morse, who has rendered very efficient services as pathologist for a number of years, and who has been on leave of absence since Sept. 14, 1917, resigned on Nov. 2, 1918. Dr. Leland B. Alford, who was appointed temporary pathologist on Dec. 1, 1917, during the absence of Dr. Morse, resigned on Aug. 10, 1918, to enter the service of the United States Navy. The pathological work of the hospital since August 7 has been done by Dr. Oscar J. Raeder, who is acting both as pathologist to the hospital and assistant pathologist to the Commission on Mental Diseases. There are two vacancies for assistant physicians which it has been impossible to fill owing to existing conditions during the war.

The work of the out-patient department of the hospital includes the supervision of patients in family care, those at home on visit, the after care of patients who have been discharged from the custody of the hospital, and medical advice given to numerous persons who visit the hospital for the purpose of consulting members of the staff on matters pertaining to their own mental welfare or that of their family or relatives. The patients who have been allowed to go home on visit, or who have left the hospital temporarily for family care, are visited at frequent intervals by the social service workers of the hospital. Patients who are at home on visit are also required to present themselves at the hospital at regular intervals for observation. Considerable supervision is also given to former patients who have been discharged but who are kept under observation by the social workers and the physicians. Many cases appearing for consultation are accepted as voluntary patients. Others are referred to their family physicians or to the psychopathic department. The following is a summary

of the work of the out-patient department of the hospital during the year. A summary of the out-patient work of the psychopathic department is shown on page 76.

	Males.	Females.	Totals.
In family care Dec. 1, 1917,	—	8	8
On escape Dec. 1, 1917,	11	4	15
On visit Dec. 1, 1917,	101	126	227
Dismissed from family care during the year,	—	5	5
Went out on visit during the year,	205	189	394
Escaped during the year,	32	4	36
Admitted from family care,	—	5	5
Admitted from visit,	124	121	245
Admitted from escape,	22	—	22
Nominally admitted from visit and discharged,	81	94	175
Nominally admitted from escape and discharged,	6	5	11
In family care Nov. 30, 1918,	—	8	8
On escape Nov. 30, 1918,	15	3	18
On visit Nov. 30, 1918,	101	100	201

Total number of visits by social workers during the year,	2,379
For patients in family care,	150
For patients home on visit,	1,299
For patients in the hospital,	792
For patients discharged,	138

The work of the pathological laboratory during the year has been carried on by Drs. Alford and Raeder. The routine work of the laboratory may be summarized as follows:—

Autopsies,	106
Blood counts,	42
Bacteriological examinations,	150
Sputum examinations,	82
Spinal fluids, complete,	67
Examinations of stools,	7
Sections cut and stained,	556
Urinalyses,	526
Gastric analyses,	2
Throat cultures,	4
Widal tests,	1

The systematic treatment of general paresis and cerebrospinal syphilis by diarsenol and salvarsan has been continued.

There have been 677 of these treatments during the year. The number of deaths at the institution during the fiscal year was 346. Autopsies were done in 106, or 30.64 per cent, of these cases. Gross specimens obtained from autopsy have been demonstrated by the pathologist at staff meetings and the results of findings at autopsy discussed with the physicians in charge of the various services. Some research work was done by Dr. Alford in an investigation of the possibility of the use of antiseptic solutions in the subarachnoid space. Post-mortem material was used for these investigations. In a number of cases subdural injections of salvarsan were made for the treatment of cerebrospinal syphilis and intracerebral treatments given.

The surgical work of the hospital has been in the charge of the attending surgeon, Dr. Irving J. Walker of Boston, who has been called frequently in consultations. There is a well-equipped operating room in Building C in the East Group and one in Building B in the West Group. Better surgical facilities will be provided for in the new male infirmary, Building F, now under process of construction in the West Group. The following is a summary of the more important surgical work of the year: —

Resection of finger,	1
Amputation of finger for osteomyelitis,	1
Amputation of toe,	1
Ludwig's angina, incision and drainage,	1
Paronychia, incision and drainage,	3
Cellulitis of finger, incision and drainage,	1
Cellulitis of arm, incision and drainage,	2
Cellulitis of hand, incision and drainage,	2
Cellulitis of foot, incision and drainage,	1
Cellulitis of perineum, incision and drainage,	1
Ischiorectal abscess, incision and drainage,	3
Fistula in ano, incision and drainage,	1
Suppurative cervical adenitis, incision and drainage,	2
Suppurative tenosynovitis, incision and drainage,	1
Carbuncle, incision and drainage,	4
Division of tendon, tendon suture,	1
Double inguinal hernia, radical operation for repair,	1
Strangulated inguinal hernia, radical operation for repair,	1
Strangulated femoral hernia, radical operation for repair,	1
Hypertrophy of prostate, suprapubic ceptotomy and drainage,	1
Pleuritic effusion, thoracentesis,	1
Ascites, abdominal paracentesis,	1

In addition to the above operations performed at the institution, the following were done by Dr. Walker at the Boston City Hospital: —

Ovarian cyst, removal of,	2
Congenital megalocolon, incision and resection of bowel,	1
Repair of perineum and rectocele,	1
Choleseptitis, incision and drainage,	1
Appendicitis, appendectomy,	1
Volvulus, resection of bowel,	1
Diverticulum of colon, resection of bowel and colostomy,	1
Perineal fistula and urethral stricture, radical operation for repair,	1
Hypertrophy of inferior turbinate, excision,	1

The dental work of the year, as usual, has been under the supervision of the visiting dentist, Dr. Walter J. Whelan. Well-equipped dental rooms have been provided for during the year in Building A in the East Group and Building B in the West Group. The visiting dentist spends one afternoon a week at each group. A dental hygienist has been appointed for the purpose of assisting the dentist on his regular visiting days and doing such routine work on other days as the cleaning of teeth, etc. This has made it possible to cover a field heretofore much neglected, and to give dental care to a much larger number of patients. The dental work for the year may be summarized as follows: —

Operative: —

Treatments: —	
Of the teeth,	122
Prophylactic,	30
Fillings: —	
Amalgam,	28
Gold inlays,	3
Cement,	85
Gutta-percha,	16
Zinc oxide,	10
Fillings removed,	2
Extractions,	267
Anæsthesia: —	
General,	3
Local,	60
Conductive,	80
Alveolar abscesses,	22
Fractured jaw,	1

Operative — *Concluded.*

Pyorrhœa,	20
Examinations, miscellaneous,	91
Cleanings, prophylactic,	400
Prosthetic dentistry: —	
Plates,	3
Bridges repaired,	4
Plates repaired,	3
Bridges removed,	2
Bridges replaced,	3
Crowns removed,	2
Crowns replaced,	2

The hydrotherapeutic work of the hospital has been carried on as usual in the hydriatric rooms in Building C of the East Group. The treatment given consists of packs, needle and shower baths, douches, hot-air treatments, massage, etc. These treatments are given daily. A hydrotherapeutic equipment is needed very badly for the West Group.

The work of the training school for nurses and attendants has been carried on as usual during the past year. The curriculum has been adapted to the course of instruction prescribed by the committee on training schools appointed by the Commission on Mental Diseases. Arrangements have been made by which all of the pupil nurses will be given the benefit of a regular rotation of service and receive practical instruction in the acute service, the reception buildings, the infirmary wards, night duty, the care of acute illnesses, the care of custodial classes in the chronic services, etc. In this way they will be given experience in every phase of the care of the insane in the wards of the hospital and will be well equipped for neurological and psychiatric nursing on graduation. In accordance with the requirements of the Commission on Mental Diseases, an affiliation which will enable the pupils in our training school to obtain an extended experience in general hospital work has been arranged for with the Boston City Hospital. This will cover general medicine and surgery, the care of contagious diseases, pediatrics, gynecology and obstetrical nursing. Owing to the change from the two to the three year course of instruction now given, no class was graduated during the present year. The junior class for 1918-19 consists of 28, the intermediate class of 17, and the senior class of 13.

Five nurses are now receiving the instruction of the intermediate year at the Boston City Hospital and 5 in Fordham Hospital, New York City. There are at the present time 12 graduates from the training school employed in the wards of the hospital. An important work in connection with the training school is the instruction of attendants who desire to enter the classes but who are not high school graduates and are lacking in the preliminary education required. A course of instruction has been carried on under the auspices of the educational department of Boston University. During the past year lectures were given in various branches and 17 attendants enrolled. A systematic course of instruction was carried on during the year for female attendants who are not eligible for entrance to the training school for nurses. The hospital has lost the services of Miss Jane Robertson, R.N., superintendent of nurses, who retired on Sept. 15, 1918. Miss Robertson had been in the employ of the hospital for nearly seventeen years and had been superintendent of the training school for about fourteen years. The high standard of efficiency maintained in the school for nurses has been due very largely to her efforts, and the hospital has sustained a loss in her retirement. Miss Alice I. Whitley, R.N., assistant superintendent of nurses, left the service on account of ill health on Aug. 31, 1918. Miss Elizabeth M. Sheehan, R.N., assistant superintendent of nurses since Nov. 12, 1916, and a graduate of the training school of the Boston State Hospital, is acting as superintendent of nurses at the present time. The work of the training school will be very much facilitated by the new nurses' home recently occupied in the West Group.

Staff meetings have been conducted as usual during the past year, alternating between the East and West Groups. Meetings have been held monthly at the pathological laboratory, where autopsy reports were presented by the pathologist and demonstrations made of gross pathological material of interest. During the winter months as many members of the hospital staff as could be spared have attended staff meetings at the psychopathic department, and the chief medical officer of the psychopathic department has attended staff meetings at the hospital department.

OCCUPATIONS AND INDUSTRIES.

The women's industrial department in the East Group is under the direction of a teacher and one assistant. In this department sewing and mending is done as well as basket making, rug making, weaving, lace making, embroidery, knitting, crocheting, etc. The following articles were produced during the year:—

Aprons,	50
Aprons, embroidered,	36
Baby's bib,	1
Baby's bonnets,	2
Babies' bootees,	5
Babies' diapers,	16
Babies' dresses,	4
Baby's petticoat,	1
Baby's sets,	4
Baby's shirt,	1
Bags,	4
Bandages,	500
Bands for shirts,	18,000
Baskets:—	
Raffia,	30
Reed,	20
Braid straw (yards),	500
Button bags,	10
Buttons crocheted,	12
Cap embroidered,	1
Carpet woven (yards),	50
Case for handkerchiefs,	1
Centerpieces and doilies,	150
Chemises,	12
Cloth woven (yards),	500
Collar and cuff set,	1
Collars, crocheted,	2
Collars, embroidered,	2
Curtain holdbacks,	6
Curtain rings,	30
Curtains,	4
Cushions, pin,	24
Dish cloths, knit,	40
Dresses,	18
Engine wipes,	200
Face cloths, knit,	20
Filet squares,	24
Handkerchiefs,	25
Helmets, knit,	5

Holdes,	30
Lace (yards),	100
Leather pieces,	8
Luncheon set,	1
Mats, crocheted (set),	1
Mittens, knit (pair),	1
Napkins,	36
Nightgowns, embroidered,	10
Packets,	10
Patterns woven,	4
Petticoat,	1
Picture mounted,	1
Pie plate strip,	1
Pillow covers woven,	3
Pillow slips,	1,281
Pillow tops,	5
Pillows made over,	42
Pin balls,	6
Rug patterns,	2
Rugs:—	
Braided,	40
Hooked,	35
Turkish,	1
Woven,	75
Scarfs, knit,	36
Sheets,	50
Shirts,	18
Shrouds,	100
Slippers, bedroom,	18
Socks, knit (pairs),	200
Stockings hemmed (pairs),	100
Strips sewed,	40
Sweaters, knit,	6
Table covers and runners,	105
Tatted medallions,	8
Tatting (yards),	25
Tie crocheted,	1
Towels embroidered,	2
Towels hemmed,	4,000
Waists embroidered,	3
Woven scarfs,	12
Wristers (pairs),	2
Yokes crocheted,	12

The value of these products is estimated at \$2,796.14. Besides the above, work has been done in the sewing room valued at \$9,077.75, and on the wards valued at \$1,777.25.

The men's industrial work is conducted in Building B of the West Group. This consists of shoe repairing, the manufacture of toweling, shirting, overalls, men's stockings, repairs to rubber materials, hat making, mattress making and renovation of mattresses, the manufacture of laundry, bread and various other types of baskets, coat hangers, brushes and brooms of various kinds, mats and miscellaneous repairs. The articles produced during the past year were as follows:—

Auto curtains,	9
Auto radiator cover,	1
Auto top,	1
Baseball masks,	2
Baskets:—	
Bread, 8-bushel canvas,	16
$\frac{1}{2}$ -bushel,	24
4-bushel canvas,	49
Lunch,	9
Market,	4
No. 20 sorting,	11
Waste,	6
Braid:—	
Coir (pounds),	321
Tea mat (pounds),	345
Broom corn dressed (pounds),	900
Brooms:—	
Parlor,	968
Sink,	221
Whisk,	142
Brushes:—	
Bath,	63
Dandy,	11
Dust,	57
Hair,	22
14-inch floor,	82
Long-handled floor,	67
Long-handled scrub,	16
Nail,	64
Oven,	1
Radiator,	24
Scrub,	46
Shoe,	31
Vault,	18
Waxing,	54
Buttons, upholstery,	144

Cases: —

Inside cushion,	2
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Inside mattress,	7
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Cloth: —

Denim (yards),	234 $\frac{1}{4}$
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Shirting (yards),	527 $\frac{1}{4}$
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Toweling (yards),	3,168 $\frac{1}{4}$
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Clothespins (dozen),	35
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Coat hangers,	88
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Covers, transom,	72
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Cushions: —

Leather,	2
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Morris chair (set),	1
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Dustpan,	1
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Hammocks, bath,	14
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Handles: —

Brush,	144
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Chisel,	7
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Shovel,	1
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Hose: —

Men's (pairs),	613
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Women's (pairs),	253
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Mats: —

Chair,	39
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Coir,	10
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Mattress ticks,	156
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Mattresses,	58
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Indestructible,	37
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Tufts (pounds),	59
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Mop, dry,	1
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Mops, dish,	71
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Pillow ticks,	93
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Pillows,	36
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Press boards,	5
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Rakes,	3
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Shades,	139
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Slats (feet),	78
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Straw hats,	202
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Yarn unravelled (pounds),	21
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The value of these articles is estimated as \$5,729.11. The estimated value of the repair work done in the West Group industrial rooms is \$3,198.71. In addition to this, instruction in industrial work is given in the wards for both men and women.

PSYCHOPATHIC DEPARTMENT.

In view of the fact that the work of the medical staff at the psychopathic department does not closely follow State hospital lines, it was deemed desirable to change the titles of the medical officers of the department and make them more distinctive of the duties performed. It is a generally recognized fact that the classification of medical positions in the State hospital service cannot properly be applied to the staff of the psychopathic department, nor should the salaries paid conform to those determined upon for medical officers in other branches of the service. Appointments in the psychopathic department cannot and should not conform to any of the uniform grades in the general State hospital service. For these reasons the staff positions were classified during the year as follows:—

1. Director.
2. Chief executive officer.
Executive officer.
Assistant executive officer.
3. Chief medical officer.
Medical officer.
Assistant medical officer.
4. Chief out-patient medical officer.
Medical officer out-patient department.
Assistant medical officer out-patient department.
5. Chief psychologist.
6. Chief of social service.

On September 16 the director of the psychopathic department was granted a leave of absence to enable him to accept a commission in the Chemical Warfare Service of the United States Army. To insure proper supervision of the work of the department under these circumstances, the superintendent of the hospital was made responsible to the trustees for the supervision, direction and administration of the department, with authority to delegate the medical, sociological and scientific activities, research instruction and teaching, as far as deemed desirable, to others, in accordance with the policies of the Board of Trustees. Under this arrangement and under the direction of the superintendent, the administration of the

department is under the immediate supervision of the chief executive officer and the general direction of the medical and scientific work assigned to the chief medical officer. Dr. Arthur P. Noyes was promoted from the position of acting chief executive officer to chief executive officer on Nov. 1, 1918. Rules and regulations covering the work of the medical staff of the psychopathic department as recently adopted by your Board have facilitated the administration of the department, made the duties of the various officers clearer, and systematized the work of the staff in a manner which has already been productive of greater efficiency.

AGRICULTURAL WORK.

The land under cultivation during the year was as follows: —

	Acres.
Alfalfa,	1
Asparagus,	$\frac{1}{4}$
Barley,	$\frac{3}{4}$
Beans, field,	$\frac{1}{4}$
Beets,	1
Blackberries,	$\frac{1}{4}$
Cabbage and cauliflower,	$1\frac{1}{2}$
Cabbage, late,	$2\frac{1}{2}$
Carrots,	$1\frac{1}{2}$
Celery,	$\frac{1}{4}$
Corn: —	
Field,	$2\frac{1}{2}$
Sweet,	$4\frac{1}{2}$
Hot beds,	$\frac{1}{4}$
Lettuce and onions,	$\frac{1}{4}$
Onions,	1
Parsnips,	1
Peas and beans,	$1\frac{1}{2}$
Potatoes,	$21\frac{3}{4}$
Rhubarb,	$\frac{1}{2}$
Spinach,	$\frac{1}{4}$
Spinach, kale and peas,	1
Squash: —	
Summer,	$\frac{3}{4}$
Winter,	4
Strawberries,	$\frac{1}{2}$
Swiss chard,	$\frac{1}{4}$
Tomatoes,	1

	Acres.
Turnips,	$\frac{1}{4}$
Late,	$1\frac{1}{2}$
White,	4
Winter rye,	5
Total,	$60\frac{3}{4}$

The farm products raised were as follows: —

Alfalfa hay (tons),	4 $\frac{1}{4}$
Corn, field (bushels),	349
Fodder: —	
Barley (tons),	5 $\frac{1}{2}$
Cabbage and kale (tons),	69
Corn (tons),	31
Turnip (tons),	6
Hay: —	
No. 1 (tons),	63
No. 2 or meadow (tons),	22
Ice (tons),	700
Manure (tons),	480
Pork (pounds),	29,322
Rye (bushels),	75
Rye straw (tons),	12

Garden Products.

Asparagus (boxes),	9
Beans: —	
Dry (bushels),	10
Shell (bushels),	32
String (bushels),	271
Beet greens (bushels),	157
Beets (bushels),	301
Cabbage (tons),	38
Carrots (bushels),	1,136
Cauliflower (boxes),	3
Celery (boxes),	57
Chard, Swiss (bushels),	292
Corn, sweet, green (bushels),	812
Cucumbers (boxes),	31
Egg plant (barrels),	4
Kale (bushels),	514
Lettuce (boxes),	732
Onions (bushels),	283
Parsley (bushels),	9

Parsnips (bushels),	864
Peas, green (bushels),	75½
Potatoes (bushels),	4,143
Radishes (bushels),	6½
Rhubarb (pounds),	8,297
Scallions (bushels),	29
Spinach (bushels),	434
Squash: —	
Summer (barrels),	23
Winter (hundredweight),	781
Tomatoes, green and ripe (bushels),	344
Turnips (bushels),	1,181

Fruits.

Apples: —	
Crab (barrels),	3
Seconds (barrels),	66½
Blackberries (quarts),	812
Currants (quarts),	470
Pears (bushels),	6¾
Raspberries (quarts),	9
Strawberries (quarts),	331

The value of these products was estimated at \$27,143.58.

FINANCIAL STATEMENT.

The following appropriations were made for repairs and improvements at the last session of the Legislature (chapter 50, Resolves of 1918): —

For furnishing window bars, a sum not exceeding	\$1,500
For constructing and furnishing a male infirmary to accommo- date 324 patients and 30 nurses, a sum not exceeding	385,000
For the purchase of one boiler and blower, a sum not exceeding	11,000

The resolution provides that these amounts are to be expended under the direction of the Commission on Mental Diseases. The contract has already been awarded for the installation of the window guards at the psychopathic department. Contracts have also been awarded for the construction of the male infirmary in the West Group, to be known as Building F, and the work is well under way. The blowers have already been installed and a boiler has been purchased for the central power plant in the East Group. The sum of \$694,827.28 was

appropriated for the maintenance of the hospital for the current fiscal year. The expenditures of the institution were as follows: —

	Amount expended.	Per Capita.	Percentage of Total.
Salaries and wages,	\$249,590 07	\$154.1022	32.4869
Religious instruction,	1,498 00	.9249	.1951
Travel, transportation, etc.,	17,607 02	10.8709	2.2912
Food,	177,204 61	109.4099	23.0653
Clothing and material,	19,446 30	12.0066	2.5313
Furnishings, etc.,	39,085 30	24.1321	5.0874
Medical and general care,	19,261 66	11.8925	2.5072
Heat, light and power,	203,098 99	125.3920	26.4344
Farm and stable,	11,368 86	7.0194	1.4797
Grounds,	892 64	.5512	.1163
Repairs, ordinary,	24,858 59	15.3482	3.2357
Repairs and renewals,	4,375 61	2.7016	.5695
General maintenance,	518,688 58	320.2493	67.5131
Total,	\$768,278 65	\$474.3515	100.0000

The expenditures of the hospital for the year were as follows: —

	Amount expended.	Per Capita.	Percentage of Total.
Salaries and wages,	\$181,225 04	\$118.1080	28.6499
Religious instruction,	1,398 00	.9111	.2210
Travel, transportation, etc.,	14,092 91	9.1846	2.2279
Food,	150,429 36	98.0379	23.7789
Clothing and material,	18,839 28	12.2780	2.9783
Furnishings, etc.,	35,835 93	23.3550	5.6653
Medical and general care,	13,410 92	8.7401	2.1201
Heat, light and power,	178,083 15	116.0604	28.1317
Farm and stable,	11,368 86	7.4093	1.7972
Grounds,	876 64	.5713	.1386
Repairs, ordinary,	23,515 15	15.3253	3.7175
Repairs and renewals,	3,475 61	2.2651	.5494
General maintenance,	451,325 81	294.1383	71.3501
Total,	\$632,550 85	\$412.2463	100.0000

The expenditures of the psychopathic department for the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Salaries and wages,	\$68,365 03	\$802.0299	50.3692
Religious instruction,	100 00	1.1733	.0736
Travel, transportation, etc.,	3,514 11	41.2261	2.5890
Food,	26,775 25	314.1160	19.7269
Clothing and material,	607 02	7.1213	.4471
Furnishings, etc.,	3,249 37	38.1203	2.3940
Medical and general care,	5,850 74	68.6384	4.3106
Heat, light and power,	25,006 84	293.3693	18.4242
Farm and stable,	—	—	—
Grounds,	16 00	.1877	.0117
Repairs, ordinary,	1,343 44	15.7607	.9898
Repairs and renewals,	900 00	10.5585	.6639
General maintenance,	67,362 77	790.2718	49.6308
Total,	\$135,727 80	\$1,592.3017	100.0000

Based on the average daily population for the institution the per capita cost for the year was as follows: hospital, \$7.91 per week, \$412.25 per year; psychopathic department, \$30.54 per week, \$1,592.30 per year; total for the institution, \$9.12 per week, \$474.35 per year. The per capita cost for the year 1917 was as follows: hospital, \$5.75 per week, \$299.54 per year; psychopathic department, \$26.07 per week, \$1,359.29 per year; total for the institution, \$6.91 per week, \$359.26 per year. The increased rate of expenditure is, of course, to be explained by the increased rate paid for salaries and wages and the enormous increase in the cost of all commodities, due to war conditions. It should be borne in mind that the cost of heat, light and power is unusual this year owing to the fact that, on the recommendation of the fuel commissioner, the winter supply of coal was purchased in advance and delivered during the summer. The total expenditures for coal not intended for use during the fiscal year were \$99,797.86. Of this amount, \$84,610.30 was transferred to our accounts by the Commission from a fund appropriated for the purchase of coal for all hospitals. In addition to this, an expenditure of

\$15,187.56 was charged to the maintenance fund of the institution. Deducting the expenditures for coal to be used during another fiscal year, the actual per capita cost of maintenance for the year was: hospital, \$6.80 per week, \$353.80 per year; psychopathic department, \$28.34 per week, \$1,473.70 per year; total for the institution, \$7.91 per week, \$412.73 per year. A detailed statement of the expenditures for the year is shown in the treasurer's report.

GENERAL OPERATIONS FOR THE YEAR.

Mr. William E. Elton, steward of the hospital for many years, was granted a leave of absence by your Board on June 1, 1918, on account of ill health, and retired from the hospital service permanently on Sept. 1, 1918. Mr. Elton had been steward since Oct. 4, 1895, at which time the hospital was a city institution. At the time of his retirement he had been in the service longer than any other official connected with the hospital. His inability to continue his work will be a source of great regret to the many friends that he has made during his long service at the Boston State Hospital. Mr. Arthur E. Gilman, steward at the Worcester State Hospital for over four years, and previous to that time connected with the Grafton State Hospital, was appointed to succeed him, reporting for duty on Sept. 1, 1918.

During the progress of the development of the institution as new buildings were added several were known by the names of former superintendents, a few by numbers, some by letters and others by the purpose for which they were used. It was deemed desirable to adopt a system of nomenclature consistent with a definite plan of development and making provision for future construction. In accordance with this policy the designation of the buildings of the hospital was changed as follows:—

Old Name.	<i>East Group.</i>	New Name.
A building,	.	Administration building
Chapel,	.	Chapel.
B building,	.	Building A.
Butler,	.	Building B.
Stedman,	.	Building C.
Walker,	.	Building D.

Old Name.	New Name.
C building,	Building E.
E building,	Building F.
F building,	Building G.
Laundry,	Laundry.
Power house,	Power house.
Service building,	Storehouse.

West Group.

Fisher building,	Administration building.
T building,	Building A.
Infirmery,	Building B.
Lane,	Building C.
Noyes,	Building D.
Cottage No. 1,	Building E1.
Cottage No. 2,	Building E2.
Cottage dining room,	F dining room.
U building,	Building G.
Farm dormitory,	Building H.
Frost house,	Nurses' home.
Cowles house,	Attendants' cottage.
Farmhouse,	Farmhouse.

For the convenience of visitors signs have been placed on each of these buildings showing their designation.

The new boiler authorized by the Legislature during the 1916 session was installed and has been in use throughout the past winter. Owing to the unsatisfactory nature of the fuel available at the time, it was found necessary to use a forced draft at the power plant, and Sturtevant undergrate blowers were installed under all the boilers. This resulted in a great economy in the use of fuel.

For the purpose of bringing about the better supervision of the dietary of the institution, a dietitian was appointed early in the year. Food supplies have been purchased on a definite ration allowance for the first time, and an elaborate system of waste accounting has been instituted. This has resulted in great economy as well as the establishment of a more satisfactory food service. Definite records are now available showing the food supplies issued during each month, with the per capita allowance of every article issued in each of the departments of the institution. The value of the dietary in grams of protein and calories, as well as the amount of waste both usable

and unusable from the patients' and the employees' dining rooms are included in the dietitian's monthly reports. Butter cutters have been installed in all of the dining rooms, and several bread cutters purchased.

As a result of the rearrangement of the kitchen and dining-room service, several dining rooms have been done away with in the East Group and the food service simplified to a considerable extent.

A rearrangement of the telephone service enabled us to dispense with nearly thirty telephones in various parts of the institution.

The blanks and forms in use throughout the hospital were revised during the year and a new system of hospital reports adopted.

There having been no central location for the fire apparatus, it was decided to establish a hose room in the basement of the Administration building in the East Group. A similar room will be available later for the same purpose in the old power house in the West Group. The rules for fire protection of the hospital have been thoroughly revised, and a new system will be put into operation as soon as the apparatus can be installed.

The old cow barn and the ice house in the West Group, which were located in the immediate vicinity of the A building, have been removed to the rear of the piggery, where they are not so conspicuous, and the appearance of the West Group is much improved. The various barns and outbuildings near the farmhouse were also removed to the same place. An old building near the Administration building of the East Group was torn down early in the year.

An estimate system has been put in operation showing in detail the items which are to be purchased and charged to the maintenance fund of the hospital, and quarterly estimates are submitted to the Board of Trustees for their approval in advance of any expenditures. Arrangements have been made to issue meat, bread, milk, vegetables, etc., on requisitions, this never having been done heretofore. All articles now in use throughout the hospital are issued only on requisitions.

A rearrangement of the clerical work of the West Group has been made, and in the future all case records will be kept in

the Administration building of that group. The office work of the institution hereafter will be confined, as far as possible, to the administration buildings of the two groups.

A general rearrangement has been made of the offices in the Administration building of the East Group. The room formerly used by the stenographic force has been remodeled for the use of the trustees and the superintendent. The room formerly occupied by the superintendent is now used by the superintendent of nurses, dietitian, matron and social service workers, who have had no adequate office facilities heretofore. The former training school lecture room has been remodeled and is now used for the office of the treasurer, a new fireproof vault having been installed for the storage of the treasurer's records. A room in the basement of Building C of the East Group, originally intended for use as a gymnasium, has been utilized as the lecture room for the training school and has proved to be very satisfactory for that purpose. This rearrangement has provided additional office space which was very badly needed in the East Group, and has afforded much better facilities for the administrative departments of the hospital.

A service manual, including rules and regulations for the government of the medical staff, was adopted by the Board of Trustees early in the year and has proved to be very useful.

The old boilers in the boiler house at the West Group were removed during the year and sold to junk dealers on competitive bids, these boilers being useless as a result of the erection of the central power plant some years ago.

An appropriation was made by the Legislature in 1917 for the erection of fireproof stairways in Building F of the West Group. The original intention was to locate these stairways at the south end of the east and west wings in the present day rooms of the infirmary wards. These were recommended by the building inspectors of the District Police on the grounds that there was not a sufficient number of satisfactory exits for the removal of the bed patients from the top floor in the event of fire. As these stairways were unnecessary for any other purpose and would render the day rooms referred to practically useless, the ward service of the building was rearranged, and the lower floors are now being used as infirmary wards. This

will make it possible to remove the patients in a short time in case of fire and has greatly improved our facilities for caring for bed patients in that building. On the recommendation of the building inspectors exits have been installed from the day rooms on the first floor, and fireproof doors have been substituted for wooden doors in the basement at the landing of the stairway in the north end of the east wing of the building.

An appropriation of \$10,000 was made by the Legislature during the 1916 session for the remodeling of Building C in the West Group. This work has been done entirely by the force of hospital mechanics and has only recently been completed, the building now being in excellent condition.

The removal of the barns and other outbuildings to the rear of the piggery has proved to be so satisfactory that I am convinced that it is the proper place for buildings of this nature. It would be very desirable at some future time, if arrangements for this purpose can be made, to remove the horse barn at the East Group. This could be done by purchasing 150,000 square feet of land belonging to the Forest Hills Cemetery and located south of Canterbury Street, adjoining the West Group. This is the only part of the site bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east and Walk Hill Street on the west that has not been acquired by the State. The buildings on this site could be used by the hospital to very good advantage.

The farmhouse in the West Group was painted during the year and renovated throughout.

No fire protection having been available for the buildings in the vicinity of the piggery, two hydrants have been installed in that locality and the group connected with the 12-inch water main on Canterbury Street by a 6-inch line which was completed this summer.

An appropriation was obtained from the Legislature at the last session for the erection of a retaining wall between the power plant and the cold-storage building in the East Group. This work has been done entirely by hospital employees and is now practically completed.

The new nurses' home in the West Group, a three-story building accommodating eighty-four nurses and attendants,

was completed and occupied on Aug. 21, 1918. This provides us with facilities for housing employees in that group which have been very badly needed for many years.

There has been an extensive rearrangement of the ward service of the hospital during the year. The reception service for women has been located for a long time in Building C of the East Group, a highly unsatisfactory building for a receiving ward. Building G in the East Group is now being used for that purpose, the men in that building having been removed to the West Group. This provides the hospital for the first time with satisfactory reception services for both men and women. By sacrificing several small single rooms a highly satisfactory bathroom has been provided for on the first floor of Building G in the West Group, and five continuous bathtubs installed in that place. This furnishes the West Group with facilities for hydrotherapeutic treatment not heretofore available. As Building G in that group has a dining room on the first floor, together with numerous single rooms, both large and small dormitories and commodious verandas, it constitutes a very serviceable and satisfactory building for the reception service for men. This rearrangement provides for the care of all men in the West Group, the East Group now being used exclusively for women. The ward service in Building D of the East Group has been rearranged in such a way as to constitute one instead of two wards, the lower floor being used for day room purposes, the patients occupying the dormitories on the second floor at night. Building C in the East Group now consists of three wards instead of six, there being one ward on each floor instead of two. The wings on the west end of the building are now used as day rooms and the wings on the east end as dormitories. This rearrangement of the ward service has effected a reduction in the nursing force of seventeen employees and has provided much better facilities for the care of patients. All of the patients in Building A of the East Group now occupy the dormitories on the second floor at night, the entire first floor being used for day room purposes. This makes it possible for one night attendant to have the patients under constant observation, and furnishes on the first floor additional day room space which was badly needed.

The various changes in the ward service have resulted in an increase in the number of beds available for patients, the present capacity of the buildings being as follows:—

<i>East Group.</i>		
Building A,	. . . . .	135
Building B:—		
Ward 1,	. . . . .	25
Ward 2,	. . . . .	25
		—
		50
Building C:—		
Ward 1,	. . . . .	50
Ward 2,	. . . . .	60
Ward 3,	. . . . .	60
		—
		170
Building D,	. . . . .	70
Building E,	. . . . .	75
Building F,	. . . . .	40
Building G:—		
Ward 1,	. . . . .	20
Ward 2,	. . . . .	28
		—
		48
Total, East Group,		588

<i>West Group.</i>		
Building A:—		
Ward 1,	. . . . .	25
Ward 2,	. . . . .	25
Ward 3,	. . . . .	25
Ward 4,	. . . . .	37
Ward 5,	. . . . .	25
Ward 6,	. . . . .	37
		—
		174
Building B:—		
Ward 1,	. . . . .	65
Ward 2,	. . . . .	58
Ward 3,	. . . . .	42
Ward 4,	. . . . .	66
Ward 5,	. . . . .	59
Ward 6,	. . . . .	43
Ward 7,	. . . . .	29
Ward 8,	. . . . .	30
		—
		392

Building C: —		
Ward 1,	82	
Ward 2,	82	
	—	164
Building D: —		
Ward 1,	66	
Ward 2,	51	
Ward 3,	65	
	—	182
Building E1,		22
Building E2,		40
Building G: —		
Ward 1,	29	
Ward 2,	27	
Ward 3,	33	
Ward 4,	33	
	—	122
Building H,		70
Total, West Group,		1,166
Hospital,		1,754
Psychopathic department,		110
Total,		1,864

The chapel in the East Group was repainted during the year and presents a much more attractive appearance. The cement walk in the West Group has been extended to Building A. Grading and road building which was contemplated and started this summer had to be abandoned owing to the unfortunate shortage of employees.

The old boiler house building in the West Group, abandoned since the completion of a central heating plant, is now being remodeled for use as a garage. The old engine room in this building will be used as a central fire station for the West Group. The only place heretofore available as a garage was an old wooden building in the East Group, which has been unsatisfactory for the purpose as well as being a dangerous fire risk.

The old rags, which have been stored in a wooden building in the rear of the barn in the East Group, have been removed to a

small metal building in an isolated position in the rear of the piggery in the West Group.

A new X-ray machine has been installed at the psychopathic department, the old one no longer being adapted to the needs of the institution.

Attention should be called to the condition of the Canterbury branch of Stony Brook. The channel of this brook has been occluded to such an extent that the ground between the east and west groups is frequently flooded as a result of high rains, and considerable damage has been done to the insulation of the steam mains. If the channel of the brook is not kept open, it is quite possible that the steam lines may be interfered with to such an extent that we will be unable to heat the buildings in the West Group. If this occurs, it would also be impossible to use steam at that place for cooking purposes. This would result in very serious and unfortunate complications. There have been times, after a heavy rainfall, when there has been as much as 18 inches of water in the pump room of the central heating plant in the East Group. The only way in which this condition can be permanently remedied is by the enclosure of the Canterbury branch of Stony Brook in a conduit running through the hospital grounds. It is estimated that this work would cost in the neighborhood of \$350,000. The conduit has already been completed to the boundary of the hospital lands on Harvard Street by the city of Boston. The brook is a part of the so-called "separate system" providing for a separation of the surface drainage from the sewer system of Boston. Extension of this system is said to have cost the city approximately \$400,000 per year. If this statement is correct, the cost of extending the conduit through the grounds of the Boston State Hospital would be only a small part of the work undertaken by the city. If the city cannot complete this system, I would recommend that the Legislature be asked for an appropriation which would afford us the necessary relief. A condition which may make it difficult or impossible to continue the operation of a hospital group providing for 1,166 patients is intolerable and should receive immediate attention.

NEEDS OF THE INSTITUTION.

The needs of the institution for the coming year are as follows: —

Kitchen and dining-room building, West Group,	\$116,000
Kitchen and dining-room building, East Group,	116,000
Nurses' home, East Group,	84,000
Superintendent's house,	20,000
<hr/>	
Total,	\$336,000

Kitchen and Dining-room Building, West Group. — No kitchen building has ever been constructed for this group, the basement of the Administration building having been used for that purpose for many years, during which time the group has trebled in size. The West Group now includes 139 employees and 1,166 patients. A new building is under process of erection, and will bring the total capacity of the group to 157 employees and over 1,500 patients. The present kitchen will be entirely inadequate for this purpose. It is located in a basement, poorly lighted, poorly ventilated, inadequately equipped and unsatisfactory for the purpose in every way. No other State institution in Massachusetts, probably, has as poor kitchen facilities as the Boston State Hospital has in these two large groups. We now have one small congregate dining room, seating only about 200 patients, in a group having a total capacity of 1,166, the patients being served in twelve small dining rooms scattered throughout the group. The new building would provide for a congregate dining room to accommodate all of the employees and all of the patients who do not have to eat in the wards.

Kitchen and Dining-room Building, East Group. — No kitchen building was ever built for this group, the basement of the chapel having been used for that purpose for many years. Food is prepared in this kitchen for the medical staff, 150 employees and 588 patients. The capacity of the group will probably be increased in size. The present kitchen is in a basement, poorly lighted, poorly ventilated, very difficult to keep clean, is inadequate in size and unsuited for the purpose in every way. It should be replaced by a modern kitchen build-

ing at the earliest possible opportunity. We know of no poorer kitchen in any State hospital in Massachusetts where food is prepared for this number of people. A new kitchen and dining-room building, as proposed, would provide dining-room accommodations for 600 patients and all of the employees in the group. The absence of any congregate dining room in the East Group has compelled us to feed 250 patients in the chapel. The dining-room tables are piled up in a corner of the room for Protestant, Catholic and Jewish services, and removed to the corridor for entertainments, dances, moving-picture shows and various other public gatherings. The absence of any large congregate dining room has made it necessary to serve food in thirteen small dining rooms scattered throughout the group. The erection of a new dining-room building would enable us to use the chapel, as originally designed, for religious services, entertainments, etc. The proposed change would result in great economies in the service of food as well as resulting in greater efficiency.

Nurses' Home, East Group. — No nurses' home has ever been built for the East Group, the nurses at the present time occupying a part of one of the patients' buildings. Their removal would increase the capacity of the group by about fifty patients. It is very difficult to keep nurses and employees at the institution owing to their unsatisfactory living quarters, and about thirty employees in the East Group live outside the hospital. The nurses now occupy quarters designed originally for patients or sleep in the upper floor of the old wooden farm building, where they are subjected to a considerable fire risk.

Superintendent's House. — No superintendent's residence has ever been built for the hospital. The only house ever available for that purpose was the remodeled Pierce farmhouse acquired by the city with the Pierce farm about 1893. The house is said to be seventy-five years old and is not suited for the use of a superintendent. It furnishes accommodations for the assistant superintendent, the steward of the hospital and one of the physicians at the West Group. There is no staff house and no house available for the steward. It has been necessary for the trustees to rent a house for the superintendent's use until some other accommodations can be provided.

MAINTENANCE.

The appropriation needed for the maintenance of the hospital for the coming year will amount to \$813,078.13, which is \$44,799.76 more than the amount expended for the purpose during the present year. The necessity for this increase is very readily explained. The average daily population of the hospital during the year ending November 30 was 1,619.64. The average daily population as estimated by the Commission on Mental Diseases for the coming year will be an increase of 8.6 per cent. The amount asked for the coming year for salaries and wages represents an increase of \$17,787, which is due entirely to the new schedule of wages adopted by the Commission on Mental Diseases and uniform throughout the hospital service in the State. The increase in the cost of food supplies as estimated will amount to \$65,525.35, an increase of 36.98 per cent over the cost of last year. The amount necessary for furniture, clothing material and hospital supplies is due entirely to the increased cost of these articles. The maintenance request includes an item of \$23,887.90 for putting into effect the recommendations made by C. H. Tenney & Co. for providing conservation of heat. This item is included at the request of the Commission. Attention should also be called to the fact that the estimated increases in the cost of commodities generally used in making up our maintenance budget were the estimated increases for next year as determined by the financial agent of the Commission on Mental Diseases and a committee of hospital stewards.

Respectfully submitted,

JAMES V. MAY,
Superintendent.

Nov. 30, 1918.

REPORT
OF THE
DIRECTOR OF THE PSYCHOPATHIC DEPARTMENT
OF THE
BOSTON STATE HOSPITAL.

To the Trustees of the Boston State Hospital.

I beg to submit herewith my seventh annual report, and the sixth to cover a year of work as director of the Psychopathic Department of the Boston State Hospital.

I present this report to your Board Sept. 16, 1918, namely, three months in advance of the usual date of presentation, on account of my prospective participation overseas in the Chemical Warfare Service in which I now hold a commission as major from Aug. 31, 1918. Though this report may require supplementing by certain additional statistical facts, the main features of this year's work can safely be set forth at this time.

As in previous reports, I shall take up special features under separate sections: I, statistics; II, problems of hospital management; III, medical and scientific problems of the year; IV, social problems, especially in the out-patient department; V, general and medical educational activities (conferences, medical clinics, social clinics); VI, lectures and publications; VII, alumni (including a list of alumni in military service); VIII, acknowledgments.

The department was established, under the provisions of chapter 470 of the Acts of 1909, as a hospital for the first care and observation of mental patients and the treatment of acute and curable mental disease. In compliance with said act, the trustees of the Boston State Hospital erected, furnished and

equipped buildings to accommodate 100 patients; the department at present operates 110 beds, so that the population may remain approximately 100 and still allow for emergencies.

The enabling act called for the establishment, in addition to the requirements of an out-patient department, of treatment rooms and laboratories for scientific research as to the nature, causes and results of insanity. A portion of the general appropriation of the Commission on Mental Diseases, namely, \$5,000, is devoted to investigation of the nature, causes, treatment and results of insanity and the publication of such investigations. As recommended in recent reports there is no doubt that this sum should be greatly increased in future years. Although the war may suggest and compel certain curtailments in State hospital work, there can be no doubt that the true functions of the Psychopathic Department, or psychiatric clinic, namely, the proper handling of the incipient, acute and curable cases of mental disease, must be supported enthusiastically if post-bellum work in reconstruction is to rise to its proper level. A good portion of the sum appropriated by the Commission on Mental Diseases has been used in the development of work on the treatment of brain syphilis (see below, section IV). Another portion of it has been devoted to fundamental studies in the anatomical and chemical nature of mental disease and defect, and especially in recent years to work on feeble-mindedness.

The salary of the director as well as that of the assistant pathologist, Dr. M. M. Canavan, and (up to their entrance into military service) the salaries of Drs. H. C. Solomon and D. A. Thom, working largely on the syphilis investigation, have been paid by the Commission. The important legislative provision (under authority of chapter 115 of the General Acts of 1917) for a further extension of psychopathic hospital service in the State, and for the appointment and payment of other officers engaged in psychopathic hospital service under the Commission, has remained only a potentiality. However, the nervous and mental reconstruction problems which will follow the war, and which are already being developed by it, may allow us to take advantage of the provisions of chapter 115 of the General Acts of 1917 even earlier and more extensively than

could have been predicted when the legislation was put on the books.

The internal economy of the institution has continued to the satisfaction of all under an arrangement by which the executive and medical duties are separated to the end that a minimum of friction and a maximum of efficiency may be secured. It was noted in the report of the department for 1917 that the chief problem confronting the department in the future would be that of maintaining high-standard continuous medical service and developing a high-standard continuous out-patient service. Already in the report for 1917 it was possible to report that the executive service had been consolidated on a salary basis sufficient to insure continuity of service. An analogous achievement may be reported for 1918 in that a salary scheme has been adopted by the proper authorities insuring under ordinary peace conditions, at all events, a proper continuity of medical service.

It is also now possible to report that we are on the way to a proper high-standard operation of the out-patient service, which remains, as in former years, a dominant, not to say primary, activity of the department. Last year I spoke of the national reputation of the department and its effect in securing a continuous stream of applicants for subordinate positions in the medical service for limited periods.

As the list in section VII (alumni) will show, in wartime not even the national reputation of our department can secure such a continuous stream of applicants. I have accordingly to report that from time to time the department has run upon a low-speed basis owing to the fact that proper officers had all been drawn into military service or absorbed into civilian occupations which left no time for advanced training, such as the Psychopathic Department under ordinary peace conditions affords. A partial compensation for this lack of available applicants was found in the officers detailed for instruction to the Psychopathic Department by the Division of Neurology and Psychiatry of the Surgeon-General's Office. But these men could not for various reasons be used as mere routinists in our hospital machine. I can hardly make too prominent the loyalty and zeal of the officers who maintained the machinery under

these conditions. Had these officers not felt that the maintenance of the Psychopathic Department standard was going to be of the highest value in the mental hygiene of post-bellum reconstruction, I doubt whether they could have maintained their interest in their work in the midst of the war pressure.

I mentioned above the primacy of the out-patient department work amongst our activities. Section IV speaks more in detail of the community relations. There is hardly any branch of public or private work in charities and corrections but has threads running to the Psychopathic Department.

Our work in securing a low mortality in delirium tremens and other alcoholic conditions remains as effective as ever. It is a curious bi-effect of the war that the spread of these psychiatric standards of treatment (prolonged baths, with no drugging) is going greatly to be hastened by the up-to-date methods of treatment adopted in the war hospitals. The Division of Neurology and Psychiatry of the Surgeon-General's Office has at times proclaimed the fact that the standards of treatment of mental cases in the war hospitals are decidedly higher than those that are found in many State hospitals of the more backward States and are on a level with the standards of hospitals of the best States.

The monograph series of the Psychopathic Department is to have another addition this year.

Monograph No. 1 was the important communication on the point scale which Prof. Robert M. Yerkes (now major) made in 1915. ("The Point Scale," by R. M. Yerkes, J. W. Bridges and R. S. Hardwick; published by Warwick & York.) Professor Yerkes was psychologist to the Psychopathic Department from March 13, 1913, to Aug. 31, 1917, leaving it to become professor of psychology in the University of Minnesota. Then the war emergency arrived and he became head of the Division of Psychology of the Surgeon-General's Office. His work on the point scale greatly aided his task in the Army, and it is worth while for the Psychopathic Department to express its pride in having a share in that success.

Monograph No. 2 of the Psychopathic Department series was published in 1917. ("Neurosyphilis: Modern Systematic Diagnosis and Treatment, presented in One Hundred and

Thirty-seven Case Histories," by E. E. Southard and H. C. Solomon; published by W. M. Leonard, Boston.) In the latter part of that work, reference was made to the relation of neurosyphilis to the war. The systematic work upon which this monograph was founded has been continued since Dr. Solomon went into the section head surgery of the Surgeon-General's Office by Dr. Lawson G. Lowrey, chief medical officer of the Psychopathic Department, and more recently by Dr. Oscar J. Raeder, assistant pathologist to the Commission on Mental Diseases and pathologist to the Boston State Hospital.

Monograph No. 3 is in the last stage of revised proof as I read this report. The monograph is entitled "Shell Shock and Other Neuropsychiatric Problems, presented in 589 Cases from the War Literature, 1914-17," by E. E. Southard and Norman Fenton. Mr. Fenton, now serving in special work with Base Hospital No. 117, a hospital for mental and nervous cases in France, made an elaborate bibliography of some 2,500 references, which was the basis of the analysis in question.

Among other special achievements of the hospital during the year may be mentioned the successful execution of the didactic portion of a course in psychiatric social work under the directorate of Miss Mary C. Jarrett, the head of the social service of the Psychopathic Department, who was allowed to carry on this work during eight weeks of the summer of 1918 at Smith College, Northampton, Mass. Special statement concerning this course is made in section IV.

For more detailed reports of the department's results during the year, reference may now be made to the special sections of this report.

I. STATISTICS.

The daily average population during the medical year 1918 was 85. The number of patients in the department Oct. 1 1918, was 86. On Sept. 30, 1917, the number was 95.

The total admissions numbered 1,943, making a daily average intake of a little over 5 cases. Of these 1,943 cases, 208 were second or third admissions during the year, so that the total number of different persons admitted was 1,735.

These 1,943 cases were distributed among different forms of commitment, as follows: —

Temporary care (chapter 174, General Acts of 1915),	1,293
Boston Police (chapter 307, Acts of 1910),	226
Voluntary,	338
Observation (section 43, chapter 504, Acts of 1909),	13
Pending examination and hearing (section 34, chapter 504, Acts of 1909),	7
Emergency (section 42, chapter 504, Acts of 1909),	2
Commitment Superior Court (chapter 46, General Acts of 1917),	31
Military provision (chapter 142, General Acts of 1918),	33

Of these admissions, 710 became regular court commitments later (341 to the Boston State Hospital).

The native born (1,039) were found to exceed in numbers the foreign born (867); the birthplace of 37 was unknown.

The average age on admission was 38.55.

Of the discharges, 1,134 were discharged not recovered, 309 improved, 402 not insane, 46 recovered, 61 dead.

Temporary Care Statistics for the Year.

	Males.	Females.	Totals.
Patients remaining Oct. 1, 1917,	15	12	27
Admissions from Oct. 1, 1917, to Sept. 30, 1918,	844	730	1,574
Viz.: section 34, chapter 504, Acts of 1909,	5	2	7
section 43, chapter 504, Acts of 1909,	7	6	13
section 42, chapter 504, Acts of 1909,	1	1	2
chapter 307, Acts of 1910,	161	65	226
chapter 174, General Acts of 1915,	637	656	1,293
chapter 142, General Acts of 1918,	33	—	33
Whole number of cases within the year,	859	742	1,601
Discharged from Oct. 1, 1917, to Sept. 30, 1918,	849	718	1,567
Viz.: recovered,	21	8	29
improved,	91	50	141
unimproved,	190	142	332
died,	23	9	32
not insane,	135	130	265
voluntary to Boston State Hospital,	27	49	76
committed to Boston State Hospital,	147	162	309
committed to Danvers State Hospital,	18	24	42
committed to Worcester State Hospital,	72	34	106
committed to Westborough State Hospital,	30	35	65

Temporary Care Statistics for the Year — Concluded.

	Males.	Females.	Totals.
Discharged from Oct. 1, 1917, to Sept. 30, 1918 — <i>Con.</i>			
Viz.: committed to Taunton State Hospital,	15	9	24
committed to Medfield State Hospital,	43	40	83
committed to Grafton State Hospital,	15	7	22
committed to Foxborough State Hospital,	1	3	4
voluntary to Monson State Hospital,	2	4	6
returned to Monson State Hospital,	1	—	1
committed to McLean Hospital,	10	6	16
committed to Dr. Ring's Sanitarium,	3	3	6
committed to Herbert Hall Sanitarium,	1	1	2
committed to Dr. Mellus' Sanitarium,	2	—	2
committed to Dr. Wiswall's Sanitarium,	1	—	1
voluntary to Westborough State Hospital,	—	2	2
voluntary to Danvers State Hospital,	1	—	1
Patients remaining Sept. 30, 1918,	10	24	34
Daily average of temporary-care cases,	21.33	16.53	37.86

Provisional Diagnosis in Temporary Care Cases.

	Males.	Females.	Totals.
Traumatic psychoses: —			
Traumatic constitution,	2	—	2
Post-traumatic mental enfeeblement (dementia),	1	—	1
Senile psychoses: —			
Simple deterioration,	14	16	30
Paranoid states,	—	2	2
Psychoses with cerebral arteriosclerosis,	32	22	54
General paralysis,	105	19	124
Psychoses with cerebral syphilis,	13	10	23
Psychoses with Huntington's chorea,	1	—	1
Psychoses with brain tumor,	1	—	1
Psychoses with other brain or nervous diseases: —			
Acute chorea,	1	2	3
Tubercular meningitis,	1	—	1
With gun shot wound,	1	—	1
Undiagnosed organic brain disease,	6	6	12
Alcoholic psychoses: —			
Delirium tremens,	34	7	41
Korsakow's psychosis,	6	5	11
Acute hallucinosis,	28	8	36
Chronic hallucinosis,	7	1	8
Chronic paranoid type,	5	1	6
Alcoholic deterioration,	12	1	13

Provisional Diagnosis in Temporary Care Cases — Concluded.

	Males.	Females.	Totals.
Psychoses due to drugs and other exogenous toxins: —			
Opium,	1	—	1
Psychosis with trinitrotoluol,	1	—	1
Psychoses with other somatic diseases: —			
Delirium with infectious diseases,	8	14	22
Exhaustion delirium,	1	—	1
Cardiorenal diseases,	7	2	9
Psychosis with diabetes,	1	—	1
Manic-depressive psychoses: —			
Manic type,	38	36	74
Depressive type,	34	41	75
Mixed type,	4	16	20
Involution melancholia,	2	11	13
Dementia præcox: —			
Paranoid type,	129	114	243
Katatonic type,	36	33	69
Hebephrenic type,	55	57	112
Simple type,	9	3	12
Paranoia or paranoic conditions,	15	29	44
Epileptic psychoses: —			
Deterioration,	11	6	17
Clouded states,	12	1	13
Psychoneuroses and neuroses: —			
Hysterical type,	10	18	28
Psychasthenic type,	3	4	7
Neurasthenic type,	3	6	9
Anxiety neurosis,	1	—	1
Psychoses with mental deficiency,	—	1	1
Undiagnosed psychoses,	50	62	112
Not insane: —			
Epilepsy without psychosis,	13	19	32
Alcoholism without psychosis,	18	9	27
Drug addiction without psychosis,	2	—	2
Constitutional psychopathic inferiority without psychosis,	38	73	111
Mental deficiency without psychosis,	37	47	84
Acute chorea,	1	—	1
Tabes dorsalis,	1	—	1
Arteriosclerosis,	7	1	8
Conduct disorder,	4	8	12
Organic brain disease,	2	1	3
Cerebrospinal meningitis,	1	—	1
Cardiorenal disease,	1	—	1
Syphilis,	1	1	2
Suicidal attempt,	1	—	1
Brain tumor,	1	—	1
Graves' disease,	—	1	1
Undiagnosed brain disease,	—	2	2
No diagnosis (removed second day),	15	14	29
Total,	844	730	1,574

Psychoses of Voluntary Admissions Oct. 1, 1917, to Sept. 30, 1918.

	Males.	Females.	Totals.
Traumatic psychoses: —			
Traumatic delirium,	1	—	1
Traumatic constitution,	1	—	1
Senile psychoses: —			
Simple deterioration,	—	1	1
Paranoid states,	1	—	1
Psychoses with cerebral arteriosclerosis,	5	4	9
General paralysis,	39	2	41
Psychoses with cerebral syphilis,	3	5	8
Psychoses with other brain or nervous diseases: —			
Undiagnosed organic brain disease,	5	1	6
Alcoholic psychoses: —			
Delirium tremens,	1	—	1
Acute hallucinosis,	5	2	7
Alcoholic deterioration,	2	—	2
Psychoses with pellagra,	—	1	1
Manic-depressive psychoses: —			
Manic type,	1	7	8
Depressive type,	4	12	16
Mixed type,	—	2	2
Involution melancholia,	1	—	1
Dementia præcox: —			
Paranoid type,	19	16	35
Hebephrenic type,	9	5	14
Simple type,	3	2	5
Paranoia or paranoic conditions,	4	2	6
Epileptic psychoses: —			
Deterioration,	—	1	1
Clouded states,	—	2	2
Psychoneuroses and neuroses: —			
Hysterical type,	—	6	6
Psychasthenic type,	1	1	2
Neurasthenic type,	8	4	12
Undiagnosed psychoses,	10	16	26
Not insane: —			
Epilepsy without psychosis,	4	1	5
Alcoholism without psychosis,	3	2	5
Drug addiction without psychosis,	1	1	2
Constitutional psychopathic inferiority without psychosis,	6	8	14
Mental deficiency without psychosis,	8	16	24
Conduct disorder,	9	11	20
Syphilis,	1	—	1
Graves' disease,	—	1	1
Undiagnosed organic brain disease,	2	—	2
For lumbar puncture,	3	2	5
Multiple sclerosis,	—	1	1
Tubes dorsalis,	1	—	1
Discharged too early for diagnosis,	7	6	13
Total,	168	141	309

II. PROBLEMS OF HOSPITAL MANAGEMENT.

The psychopathic department of the Boston State Hospital is now a reasonably mature institution, as maturity is measured in the mental hygiene of the present time. Yet it can hardly be said that its functions are thoroughly understood either at home or abroad. At a distance, for example, at national meetings, it is plain that the hospital has achieved a considerable reputation and that it is regarded as one of the larger engines of progress in mental hygiene. Medical and administrative officers stream to the hospital, sent from all parts of the United States and Canada, and even from abroad, to examine its nature and functions. Perhaps the most frequent misconception found in these visitors is that we have somehow established in Boston a peculiarly effective kind of receiving ward for the insane.

I therefore state in this first paragraph concerning problems of hospital management that the Psychopathic Department is not at all, or only in a very minor sense, a reception ward for an insane hospital. The institution is legally a department of the Boston State Hospital and enjoys a number of economies and facilities of administration on account of that legal relation. But the Boston State Hospital main departments are entirely capable of functioning in all respects as a reception hospital for the insane. In fact, the plans of the Boston State Hospital include a properly constructed reception hospital of modern type.

Perhaps the easiest way in which to convince the visitor that we are dealing with something quite different from a reception ward of an insane hospital is to point out to him how expensive is the running of the Psychopathic Department. A hospital which costs often far over \$20 per week per patient is of course a hospital running along the expense levels of general hospitals. We can accordingly point out to the visitor the extension of general hospital standards in our management of cases. We can point out how a portion of that apparently great expense is due to the out-patient department (the per capita costs are accordingly not quite fairly interpreted when the figure of \$20 or over is stated as the per capita weekly cost,

since, in addition to the approximately 2,000 ward patients that pass through the department, there are something like 1,500 out-patients that are also treated there during a year) and a portion is due to special laboratory studies. As for these special laboratory studies, however, the majority of them are paid for by the Commission on Mental Diseases for which the department exists as a kind of research institute

The medical visitor is astonished again to find that from five to seven new patients of a doubtful nature as to whether they are psychotic or not come under observation in the wards daily. The picture presented by these patients as they are observed, for example upon morning rounds, is quite different from that presented by the patients that arrive at the ordinary district State hospital for the insane. For it must be remembered that these latter district hospital patients are practically all persons who have passed through probate court or other judicial procedure and have been passed upon as to their medicolegal insanity by two alienists. Since Massachusetts and the municipality of New York are the only governmental units in our country that allow the appearance in hospital of, in the course of a few years, thousands upon thousands of suspiciously "mental" cases, it is a little difficult for the medical officer unfamiliar with Massachusetts or New York conditions to conceive the exact scope of the temporary care provisions of our law. He is rather apt to think that Massachusetts has somehow circumvented the probate court provisions of law and that, after all, the majority of these cases are insane and not merely psychopathic. That is, he thinks that after all these cases are theoretically committable cases. Now the fact is that over a third of our cases go out from the hospital with the diagnosis of "not insane," and in point of fact these cases have never been insane in the technical or legal sense. It is not that the temporary care procedure employed at the Psychopathic Department is a method of replacing ordinary probate court provisions for the so-called "regular commitments," but these temporary care patients represent in large measure entirely new subjects for study. They are persons who, under the operations of the ordinary probate court enactments, would never reach expert psychiatrists. A

the best in former years they were sent from one neurological out-patient department to another in various general hospitals, or were treated more or less inadequately by general practitioners or neurologists unfamiliar with the incipient acute and curable group of psychopaths.

In a paper read at the Chicago meeting of the American Medical Association, entitled "*Insanity versus Mental Disease: the General Practitioner's Attitude in Psychiatric Diagnosis*," I have insisted upon this new point of view of the psychopathic hospital or psychiatric clinic.

Among the ten or more major groups of mental disease which science has now established, one finds that the general practitioner, whether of older or more modern training, is pretty well familiar with the majority. But the doctrines concerning psychoneuroses (hysteria, neurasthenia, psychasthenia) which medical men of recent generations have been taught have left the practitioner without proper knowledge concerning mild mental diseases of a non-psychoneurotic nature. Although the general practitioner is sufficiently aware of the main points concerning psychoneuroses, he is not likely to be quite aware of the main points concerning schizophrenic (dementia præcox) and cyclothymic (manic-depressive) conditions. Our educational task will be to get the general practitioners of the country to make up for their medical school deficiencies by proper postgraduate study of these neglected schizophrenic and cyclothymic diseases. The Psychopathic Department officers have accordingly felt it their duty not so much to impress medical practitioners with the novelties of modern psychiatric research as to convey to them the stock facts concerning well-known entities.

As we have common occasion to remark, the well-known virtues of hydrotherapy without drugs in alcoholic mental conditions are now so relatively ancient in their establishment and proof as to have become almost historical. Yet general practitioners and many general hospital superintendents seem entirely unaware of the virtues of this method of keeping the mortality of alcoholism down to a minimum. Both as to the treatment of alcoholism and as to the diagnosis of dementia præcox and manic-depressive psychoses there remains the duty

of psychopathic hospital officers all over the country to insist that the general practitioner shall keep up with the times. The medical visitor will accordingly find in the Psychopathic Department a place where incipient, acute and curable cases of mental disease are found, namely, psychoneuroses, with whose nature he is familiar, and schizophrenias and cyclothymias, with whose general nature he is likely to be unfamiliar.

We may be allowed to hope that the war products in the shape of mild nervous and mental cases will cause the medical profession to wake up to the existence of the Psychopathic Department group of cases. Physicians and surgeons of non-psychiatric training returning from various military camps report that they had never before understood the importance and scope of neuropsychiatry in the country. The draft has brought together certain persons that in most States remain for years outside the pale of institutional control and diagnosis by experts. Last year I mentioned the fact that Dr. Elliot-Smith of the University of Manchester, Eng., has instanced the psychopathic Department of the Boston State Hospital as the type of institution which British psychiatry strongly needed. Professor Elliot-Smith's comment was based upon his observations in connection with the war.

The Division of Neurology and Psychiatry of the Surgeon General's Office accordingly did not attempt to handle these war products in institutions resembling district hospitals, but it also provided in addition to such hospitals (*e.g.*, at Fort Porter, Buffalo, N. Y.) institutions upon psychopathic hospital lines (*e.g.*, Plattsburg War Hospital). There can be no doubt that medical officers observing the effects of such institutions as the Plattsburg War Hospital will in the peace times to follow insist upon having similar institutions in their home States and cities. Accordingly the mental hygienic measures taken by the Division of Neurology and Psychiatry of the Surgeon-General's Office and ably supported by the National Committee for Mental Hygiene will help the future of mental hygiene in two ways. In the first place, the medical men coming home to backward States will insist upon having standards of care of insane cases as high in their home States as they were in military hospitals for the insane. In the second place, these medi-

cal officers will go home desirous of having in their home States and cities hospitals analogous to psychopathic hospitals such as the one at Plattsburg, now being managed by Maj. Richard Hutchings.

This general statement may suffice to indicate how differentiated our problem is from that of the district State hospital. But it would not be right to leave the impression that the institution is not freely and easily in communication with the district hospitals. In fact, it has been the policy of the Commission on Mental Diseases to encourage all the district institutions in Massachusetts to receive as many temporary care patients as possible and as many volunteer patients as possible. Thus each State institution has to a certain extent undertaken psychopathic hospital functions, namely, the functions of diagnosis and treatment of the incipient, acute and curable group of psychopaths. As the public gets more used to the medical concept of mental disease and less accustomed to lump all mild psychopaths with the committably insane, the State institutions may very likely be found to enact a gradual change, so that in each district the institution will serve to draw more and more patients, without compulsion, under competent psychiatric observation in early phases. From this hint may be seen how central a part of the Psychopathic Department is the out-patient department, for not only do certain patients, having passed through the out-patient department, come into the wards of the Psychopathic Department, possibly even having resorted thereto on their own initiative, but are conducted into the hospital without legal entanglements of any sort.

The out-patient department does depend for its effect in the community upon its social service and its psychological work as well as upon the accuracy and speed of its medical diagnoses. It can confidently be stated from our experience that a psychopathic out-patient department can be established effectively under almost any conditions provided that (a) accurate medical diagnosis, (b) psychological examinations to determine or exclude feeble-mindedness, and (c) social service either for investigative or therapeutic purposes are available.

III. MEDICAL AND SCIENTIFIC PROBLEMS OF THE YEAR.

The publications listed in section VI indicate the tendencies and results of our work. Still further progress has been made upon the principles of psychiatric diagnosis. Last year the main headings of the director's "A Key to the Practical Grouping of Mental Diseases" were given. This year the details of this classification, namely, an approximate list of the genera and species under the eleven orders mentioned, have been offered at the annual meeting of the American Neurological Association. The details will not be here given.

The classification list of the American Medico-Psychological Association has been successfully installed in Massachusetts as in many other States. I have not attempted to overthrow or supplement this practical classification. My aim has been rather to investigate the methods of diagnosis, that is to say, the process types involved. I perceive that the problem of rapid or "snap" diagnosis could be very well studied in the cases seen upon the daily rounds of the hospital, and that the data of the somewhat more mature diagnosis possible at the end of five or six days could then be compared therewith. The diagnosis upon discharge is a still more mature one. These three stages of psychopathic hospital diagnosis — (a) the early or what might be called the sight diagnosis, (b) the provisional diagnosis at the end of the fifth or sixth day, made for the purpose of determining the immediate disposition of the case, and (c) the discharge diagnosis — can then be compared with the diagnoses in the institutions to which a certain proportion of the cases are sent. We have to deal with the sifting process. As a result of this I have deemed it wise to spend some time upon the logical method of diagnosis as a whole, and have presented at the annual meeting of the Association of American Physicians a paper on "Diagnosis per Exclusionem in Ordine." In this paper are taken up methods of diagnosis described in the books on medical logic and an application of these methods, particularly of the method of diagnosis by exclusion, has been made to psychiatric material. Considerable progress has been made upon a book illustrating the application of these logical process-types of diagnosis to the whole range of mental disease

as seen in psychopathic hospital practice. Extensive collections of the material for this purpose have been made by Dr. H. C. Solomon before his induction into military service. In the meantime, the book on "Shell Shock," referred to above, seemed to be of more direct military value, and the project for what might be termed a psychopathic hospital textbook in psychiatric diagnosis has been for the moment abandoned.

The work upon feeble-mindedness and its anatomy has been continued with the same stress as before upon the theoretically preventable and non-hereditary conditions. The public have been so extremely well educated with respect to so-called heredity that many persons were quite ready to believe that the problem of feeble-mindedness could be resolved by eugenics alone. Why not simply cut off the strains of feeble-mindedness by stopping the marriage of prospective parents of the feeble-minded?

It is quite true that the majority of cases of feeble-mindedness when not of hereditary origin are of congenital origin. It may be suspected that the public is likely to confuse these two separate ideas of the hereditary and the congenital. Among the cases of feeble-mindedness anatomically studied by the director and his associates have been many of a theoretically preventable nature, in view of the fact that the effects were very plain of intra-uterine disease that could not be set down to anything intrinsically wrong with the germ plasm of the parents.

The first monograph of the "Waverley Researches in the Pathology of the Feeble-minded" was published in the "Proceedings of the American Academy of Arts and Sciences." The materials for a second monograph are entirely in hand, and the illustrative plates are at this writing in course of preparation.

IV. SOCIAL PROBLEMS, ESPECIALLY IN THE OUT-PATIENT DEPARTMENT.

OUT-PATIENT DEPARTMENT, OCT. 1, 1917, TO SEPT. 30, 1918.

New Patients.

	Males.	Females.	Totals.
Adults,	378	589	967
Adolescents,	68	179	247
Children,	219	98	317
Infants,	3	9	12
Total,	668	875	1,543

Sources of First Visits.

Referred by —

Courts,	59
Schools,	58
Other hospitals,	175
Social and charitable organizations,	395
Individuals,	268
Doctors,	185
Miscellaneous,	83
Psychopathic department,	390
Wards,	204
Social service department,	186
Own initiative,	198
Total,	1,543

Reasons for First Visit.

Question of insanity,	202
Question of mental defect,	384
Psychoneurosis,	132
Alcoholism,	15
Sex offence,	86
Juvenile delinquent,	86
Question of familial syphilis,	217
Speech defect,	9
Question of epilepsy,	37
After-care: —	
Psychopathic department,	202
State hospitals,	173
Total,	1,543

Social Problems presented in New Cases.

Question of institutional care,	293
Question of vocational guidance,	26
Delinquency,	90
Sex delinquency,	34
Illegitimate maternity,	81
Insufficient income,	18
Unemployment,	25
Bad home environment,	64
Pathological condition,	296
No social problem apparent,	581
Unknown,	35
Total,	1,543

Diagnoses, New Cases.

1. Traumatic psychoses,	10
2. Senile psychoses: —	
(a) Simple deterioration,	3
(b) Presbyophrenic type,	2
3. Psychoses with cerebral arteriosclerosis,	12
4. General paralysis,	33
8. Psychoses with other brain or nervous diseases: —	
(a) Tabes dorsalis,	4
(b) Chorea, early psychosis,	1
9. Alcoholic psychoses: —	
(b) Delirium tremens,	5
(c) Korsakow's psychosis,	1
(d) Acute hallucinosis,	12
(f) Acute paranoid type,	1
10. Psychoses due to drugs and other exogenous toxins: —	
(a) Morphine,	2
(b) Post narcosis,	1
12. Psychoses with other somatic diseases: —	
(c) Exhaustion delirium,	3
Hyperthyroidism,	1
13. Manic-depressive psychoses: —	
(a) Manic type,	10
(b) Depressive type,	21
(d) Mixed type,	5
(e) Circular type,	3
14. Involution melancholia,	5
15. Dementia præcox: —	
(a) Paranoid type,	17
(b) Katatonic type,	7
(c) Hebephrenic type,	7

15. Dementia præcox — <i>Con.</i>	
(d) Simple type,	20
(e) Type not determined,	26
16. Paranoia and paranoic conditions,	16
17. Epileptic psychoses: —	
(a) Deterioration,	1
(b) Clouded states,	3
18. Psychoneuroses and neuroses: —	
(a) Hysterical type,	14
(b) Psychasthenic type,	25
(c) Neurasthenic type,	71
(d) Traumatic neuroses,	2
(e) Type not determined,	40
19. Psychoses with constitutional psychopathic inferiority,	3
20. Psychoses with mental deficiency,	14
21. Undiagnosed psychoses,	27
22. Not insane: —	
(a) Epilepsy without psychosis,	55
(b) Alcoholism without psychosis,	26
(c) Drug addiction without psychosis,	2
(d) Constitutional psychopathic inferiority without psychoses, ¹	165
(e) Mental deficiency without psychosis,	171
(f) Others: —	
Subnormal, ²	53
Subnormal, delinquent, ²	13
Infantilism,	2
Eneuresis,	7
Anterior poliomyelitis,	2
Organic brain disease, unclassified type,	35
Organic brain disease, post-traumatic,	1
Brain tumor,	1
Spastic paraplegia,	1
Hemiplegia,	3
Ataxia paraplegia,	1
Friedreich's ataxia,	1
Meniere's disease,	1
Cerebral arteriosclerosis,	6
Cerebral arteriosclerosis, with hemiplegia,	1
Multiple sclerosis,	1
Facial paralysis,	2

¹ This includes 120 individuals brought in almost entirely because of their delinquency. The intelligence tests and other tests showed no defect in intellect. The question whether the character defect was congenital and due to a constitutional psychopathic inferiority or to very bad environment could not be determined, therefore they are placed under the simple heading "delinquent."

² The term "subnormal" as used here implies the intermediate stage between the moron and what may be termed a low normal level. A very large proportion of these were school children who did poorly at their studies. In a few cases it was felt that possible physical defects were responsible.

22. Not insane — *Con.*

(f) Others — *Con.*

Trifacial neuralgia,	1
Neuralgia paræsthetica,	1
Multiple neuritis,	1
Optic atrophy,	1
Optic atrophy (question of tower head),	1
Syphilis (exclusive of tabes and general paresis): —	
Non-neurological,	43
Congenital,	3
Neurosyphilis,	13
Study of familial syphilis,	200
Speech defect,	4
Chorea,	12
Tic,	1
Migraine,	1
Hyperthyroidism,	1
Post-traumatic constitution,	1
Cardiac disease,	2
Cardiorenal disease,	1
Tenosynovitis,	1
Periarthritis,	2
Polyarthritis,	2
Arthritis,	5
Pulmonary tuberculosis,	3
Anemia (secondary),	1
Constipation,	1
Injury to shoulder,	2
Eczema,	1
Enteroptosis,	1
No nervous or mental disease: ¹ —	
Bad home conditions,	18
Physical illness,	18
Question of placing out,	14
Question of vocational guidance,	12
Bad temper,	18
Other social difficulties, ²	90
Deferred and undiagnosed (individuals appearing once or too seldom for diagnoses), ³	89

¹ This group represents cases mainly of persons brought in by social agencies for various purposes. Most of the patients brought in were juveniles who frequently got into difficulty because of desertion or cruelty of parents.

² This represents a miscellaneous group in which delinquency, bad home conditions, unemployment, bad temper, all were intermingled. These cases are largely social cases in which the question of mental disease had been raised, and in which no mental disease was found.

³ This represents a group of patients whose cases presented difficulties that were not solved, largely because most of the patients appeared only once or twice.

Diagnoses, Old Cases.

Data cannot be obtained.

Disposition of New Cases.

Advice only given to patient,	419
Returned to physician with recommendation,	53
Returned to charitable organization with recommendation,	158
Returned to other social organizations with recommendation,	155
Returned to schools with recommendation,	54
Returned to courts with recommendation,	80
Referred for admission to psychopathic department: —	
Voluntary admission,	99
Chapter 174,	31
Commitment recommended to other institutions,	145
Medical treatment recommended,	256
Hydrotherapy recommended,	93
Total,	1,543
Cases dismissed from psychopathic department and reporting to out-patient department for first time,	202
Cases at home from other State hospitals and reporting to psychopathic out-patient department for first time,	173
Number of visits of old patients,	6,218
Total number of visits,	7,761

The following gives the number of times the new patients reported during the year:—

Once,	1,005
Twice,	226
Three times,	104
Four times,	64
Five times,	51
Six times,	21
Seven times,	23
Eight times,	19
Nine times,	10
Ten times,	5
Eleven times,	5
Twelve times,	4
Thirteen times,	2
Fourteen times,	1
Fifteen times,	1
Sixteen times,	2
Total,	1,543

Both in the introductory paragraphs and in the section on hospital management much has been said concerning the prominence of the out-patient department amongst our activities. The out-patient department with its medical, social and psychological services forms a unit somewhat divorced from the ward treatment and research work of the Psychopathic Department as a whole. But I would again insist that it is even possible for a community to start an out-patient department *de novo* and by itself without establishing a psychopathic hospital in its entirety. In fact this sort of social advance may be the only possible one, psychiatrically speaking, in communities too poor in money or enthusiasm to start a psychopathic hospital in full panoply.

The work with children, set on its feet by Prof. W. P. Lucas, has kept constantly to its original bulk and quality. The present chief of the out-patient department has greatly stimulated the neurological side of the department. The term "neuropsychiatric" would be nowhere more appropriate than over the doors of the out-patient department. The work upon delinquents bulks as large and as interesting as ever. On account of close relations with Dr. Wm. Healy's work in the Harvey Baker Foundation of our juvenile court, and on account of the close relations with Dr. Anderson's work at the municipal court, our work has been permitted to flourish greatly, so that few cases in the community which demand neuropsychiatric examination fail to get it in one form or other. Last year I pointed out that a brief analysis of Miss Mary Richmond's book on "Social Diagnosis" showed that fully half the cases studied therein had important psychiatric sides. I think it would be safe now to say that a new branch of social art has been established, namely, social psychiatry. Some considerations bearing upon this, now being circulated in reprint form, I have published in *Mental Hygiene*. Some of the ideas therein presented came to a culmination very shortly in the School of Psychiatric Social Work, under the auspices of the Psychopathic Department, in Smith College during the summer of 1918. The didactic portion of this course, taking eight weeks, was given at Smith College. Out of some 400 applicants for the work, many of whom were eager to undertake it on account of the war fervor, some 70 were chosen. They

were, as a rule, women who had graduated from college and had special interests in reconstruction problems. They were given sociology, psychology and psychiatry in virtually equal parts. Their instruction in sociology, given by Professor Chapin of Smith College, was very thorough and included enough of statistics for the usual sociological purposes. The course in psychology by Professor Rogers included practical work in mental tests. Although it was no part of the course to train assistants in psychology, it was thought that these psychiatric social workers would greatly benefit if they understood the point of view and something of the technique of mental tests.

A portion of the course was devoted to the methods of social case investigation, and it may be assumed that these workers got a reasonable concept and idea of the methods of social work as a whole. Lectures upon psychiatry and demonstrations of cases from Northampton State Hospital formed a part of the psychiatric work. Lectures by many leaders in psychiatry were also given. It may perhaps be claimed that this Smith College work went far to prove that the intensive method of training social workers by compacting their didactic work into a few weeks is a good and reliable method. The certificates for work in this school are to be given at the close of eight months, namely, two months of didactic work and six months of practical work undertaken in institutions where proper supervision by expert social workers is possible. Some of the persons who took this course had already had sufficient practical work to warrant their being given the certificate. A list of these follows:—

Name and Source of Practical Training.

Amelia J. Massopust, Manhattan State Hospital.

Marjorie Keyes, Toronto General Hospital.

Evelyn Raynolds, Los Angeles County Charities.

Gertrude C. Scott, Charity Organization Society of New York.

Eleanor Stokes, Pennsylvania School for Social Service, Philadelphia, Pa.

Marion H. Rice, Pennsylvania School for Social Service, Philadelphia, Pa.

Mary Rodgers Ferguson, Pennsylvania School for Social Service, Philadelphia, Pa.

Evelina W. Rometsch, Society for Organizing Charity, Philadelphia, Pa.

Bertha C. Reynolds, Boston Children's Aid Society.

Esther C. Cook, Inwood House for Delinquent Girls, New York.

Margaret Crooks, Psychopathic Department, Boston State Hospital, Boston, Mass.

Appended are statements concerning the work of special committees and agencies in the out-patient department, the more extensive of which are those on employment and on syphilis.

Work of the Social Service, 1917-18.

The work of the social service for 1917-18 has continued as in the past with three workers on routine, with a chief (Miss Mary C. Jarrett), two assistants upon regular work, and three special workers privately paid (on brain syphilis, on unemployment, and on special investigations). There have been six internes working for various periods from a month to eight months and twelve externes working for various periods from a month to six months.

The nucleus of the work has as usual been the individual case work. There have been 355 cases classified as "intensive" cases of social work, of which 218 are new upon our books, 114 continued and 23 at some time previously closed but now renewed. Of these "intensive" cases, 167 were males, 152 females and 36 minors. In addition to the 355 "intensive" cases there have been 224 new cases of what we classify as "slight service," in which no attempt at elaborate investigation or supervision was made, but in which time and energy were spent in shifting to other sources of authority and in other minor ways. In all 3,283 visits were made, including 749 visits to patients themselves, and 2,161 interviews were held of which 1,500 were with patients.

Some notion about the service is indicated by the fact that there were 10,839 telephone calls entailed by this service and 5,018 letters.

In the above enumeration of 579 cases of individual social handling the follow-up service cases were not included. The follow-up service cases were 1,174 in number. These, together with the 659 syphilis cases, bring the grand total of cases dealt with up to 2,412. It is difficult to estimate the bulk and importance of this work because there is no institution in the country with which we are acquainted where similar psychiatric social work to such an extent is being carried on. Reasonably satisfactory work has been carried on in the 355 "intensive" cases above mentioned and in the 659 syphilis cases, a total of

1,014 cases. It is safe to say, therefore, that over 1,000 cases of psychopathic difficulty have been handled by the social service during the year.

The social service naturally had many contacts with war material, dealing with 68 army cases and 10 navy cases that passed through the wards of the psychopathic department, and with 15 other cases, either cases of discharge from one or other of the belligerent armies or cases sent from draft boards, making a total of 100 cases. Forty-four of these 100 social service war cases were classified as "intensive" and 56 as "slight service." A great range of questions had to be taken up in the war case adjustments. There were many complicated and technical questions concerning insurance, compensation and allotments which, with the misunderstandings of the psychopathic patients themselves and of their distraught relatives, made the lot of the visitor a difficult one.

A second special difficulty in the military cases lay in the fact that many of them were from a great distance, so that the task of social investigation was rendered doubly or triply hard. The question of "atmosphere" for returning soldiers, difficult as it is recognized to be for normal men, is still more difficult for returning psychopathic soldiers. The anxiety of their families was a superadded factor of great difficulty. The meagerness of governmental data and the difficulty of extracting these data from red tape must also be mentioned. The worker especially engaged in the military cases was Miss Martha B. Strong.

The follow-up service under the special charge of Miss Dorothy Q. Hale dealt with 1,174 patients classified as "due to report." Three hundred and eighty-four of these patients reported without reminder by the social service, 444 were encouraged to report by reminders given them by letter or telephone, 49 were able to give legitimate reasons for not reporting, leaving 297 out of 1,174, or 25 per cent, which were, in the year in question, lost. Although these "lost" cases are to be regretted from the standpoint of mental hygiene, yet we believe that the general percentage of success in getting patients back under observation is a very high one and a topic for congratulation under our general war conditions. The total num-

ber of visits made by the 1,174 patients was 2,790, of which 1,885 were without reminder.

The syphilis division of the social service, developed by and formerly under the charge of Mrs. Maida H. Solomon, was in charge of Miss M. E. Wheeldon during the fiscal year 1918. One hundred and eight patients (including some relatives of former patients brought in through the efforts of the service) were brought under treatment at the psychopathic department during the year. This figure does not indicate the total number of persons investigated by the syphilis division, which total is 458 (1,865 visits in connection with these persons). The syphilis service dealt with 130 new families, 100 being the families of patients who had passed through the wards of the psychopathic department and 30 being families of patients who resorted to the out-patient department alone. It was found possible to get the entire family to report in 43 instances. As the cost of salvarsan treatment is considerable, and it is advisable for every reason to have the patients pay as far as possible for their treatment, it is of interest to record that the patients themselves paid \$1,226.65 for treatments. There was paid out of the fund of the Commission on Mental Diseases for syphilis investigation a sum of \$199.08. Other sums, contributions, payments by other agencies and the like amounted to \$1,042.78.

The unemployment problem has interested us as in the past three years. The great dearth of employees has simplified the task of the psychopathic department considerably. First and second choice are not available for most employers. They therefore give the psychiatric patients opportunities more readily than formerly, and, finding these employees satisfactory, are more ready to employ them the next time.

A large department store, through its interest in the past employment work at the hospital, plans of its own initiative to send to the out-patient department for advice from the employment worker an employee who because of epilepsy it cannot at present employ.

During the year the second hundred industrial histories were completed and the material put in form for analysis by Dr. Herman M. Adler, whose report on the first one hundred his-

tories studied was published in "Mental Hygiene," January, 1917, under the title "Unemployment and Personality." There were more young men in this group than in the first hundred. A comparison of the two groups in the light of Dr. Adler's analysis will be enlightening for the problem of the employment of psychiatric cases.

A total of 33 cases have been handled by the employment worker this past year. Of these, 13 are now under care. Of those under care, 12 are now working, 10 of them very satisfactorily.

Miss Clare W. Butler has been the special worker on the unemployment service.

Special attention should be given to the training school for psychiatric social work carried out under the auspices of the psychopathic department and of Smith College. The didactic part of the course has been successfully completed at the summer school held at Smith College, Northampton, July 8 to August 31. There were sixty-three students, representing twenty-one States and twenty colleges. Ten who had already received practical training in social case-work received certificates for completion of the course. Three failed to make a passing grade in the summer work; and two were advised not to go on with the training, one on the ground of immaturity, the other on the ground of poor physical condition. Forty-six students are now placed for practical training as follows: 6 at Phipps Clinic, Johns Hopkins Hospital, Baltimore; 2 at the Boston Dispensary; 3 at Boston State Hospital; 1 in the Home Service Section, Boston Metropolitan Branch, American Red Cross; 3 at the Massachusetts General Hospital; 8 at the Psychopathic Hospital, Boston; 1 at the Brooklyn State Hospital, Brooklyn; 5 at the Charity Organization Society, N. Y.; 2 at Cornell Clinic, N. Y.; 6 at Manhattan State Hospital, Ward's Island, N. Y.; 5 at Neurological Institute, N. Y.; 2 at the Society for Organizing Charity, Philadelphia; 2 at the University Hospital, Philadelphia.

The instruction in the summer school consisted of courses in sociology, psychology and social psychiatry, which were carefully correlated and directed toward the practical work for which the training school is to prepare. The students are being

fitted to perform three functions: (1) to secure social histories required for medical diagnosis; (2) to assist in the re-education of patients in the hospital if pressure of work upon the physicians makes such lay assistance desirable; and (3) to undertake the social readjustment of discharged patients.

Lectures were given by twenty-nine persons in addition to the regular teaching staff, which was composed of Professors Chapin and Rogers and Miss Ruth Clark of Smith College, Dr. Edith R. Spaulding and Miss Jarrett. The lecturers invariably commented upon the high average of the students in personal effectiveness and intelligence. Dr. Walter E. Fernald, superintendent of the Waverley School for the Feeble-minded, in a letter after his visit spoke of the school as "that wonderful group assembled for the course." Many of the physicians who came to lecture spoke of the important significance of this school as the foundation of new developments in mental hygiene. Maj. Frankwood E. Williams, acting chief of the Division of Neurology and Psychiatry in the surgeon-general's office, who was prevented from coming by demand from Washington, wrote: "I was very sorry not to be able to come, as the occasion it seems to me was a very significant one. Some day, I believe, we shall look back to the day this course opened as a very important day."

A series of ten clinics for social workers of the city were held by Dr. Myerson. Dr. Southard gave twelve lectures on social psychiatry at the School of Social Work, one series of six lectures to experienced social workers and the other series of six lectures to less experienced workers and students.

V. GENERAL AND MEDICAL EDUCATIONAL ACTIVITIES (CONFERENCES, MEDICAL CLINICS, SOCIAL CLINICS).

Reference has been made in other sections of the report to these activities, but a brief summary of them may here be inserted.

As for new activities, the course for special instruction in military psychiatry has been mentioned above in its general relation to the hospital work. It is probable that the department will be again used for this purpose during the coming year on account of the necessity for developing great numbers of

trained alienists for work both overseas and in the domestic camps.

The department has endeavored to make itself felt in the new field of social work, as mentioned in section IV. An attempt has been made to establish a new department of psychiatry, namely, social psychiatry. The psychiatrist or mental hygienist will need in practical work not only skilled mental nurses but also skilled psychiatric social workers or mental hygiene aids. It may be hoped that in the future the Psychopathic Department will be able to further this development of mental hygiene aids. No science is apt to flourish extensively over a period of years without developing its competent lay assistants. If mental hygiene is to have development independent of social hygiene and of public health (neither of these departments has apparently sought to undertake the neglected work of mental hygiene) then mental hygiene must acquire its own machinery for practical work. One part of that machinery will be the skilled mental hygiene aid who shall have been given instruction along such lines as those mentioned in section IV.

Among the new things of an educational nature which the Psychopathic Department has undertaken might be mentioned the work for technicians, which has gone on in the laboratory under the charge of Dr. Myrtelle M. Canavan, assistant pathologist to the Commission, and Miss E. R. Scott. During the past six years a score of persons have been trained in the difficult special arts of pathological and neuropathological technique. The trustees of the hospital have from time to time allowed these technical workers to be lodged at the expense of the State on account of the fact that the work they do is of an equivalent value to the State.

The routine instruction in psychiatry for the Harvard and Tufts students has gone on as in past years, and the Psychopathic Department is the center for such instruction in Massachusetts. It should be the policy of the Psychopathic Department to have its officers connected with the medical schools and to permit, in the interest of the mental hygiene of the community, the easy assignment of its officers to the teaching functions. One of the reasons why the Psychopathic Department was placed in the institutional district of Boston is its vicinity

to medical experts. The State can never give up its medico-legal relations to the insane, and so many psychopaths become medicolegally, that is to say committably, insane that it will probably be always wise for the Commission on Mental Diseases to have supervision over all the psychopaths of the community. In fact, it was at one time proposed that the Commission on Mental Diseases be named Commission on Mental Hygiene. The State's interest therefore touches instruction in nervous and mental disease. The Commonwealth of Massachusetts has always been a leader in respect to psychiatric instruction. The Commonwealth has for decades called for better instruction in the medical schools in these particular fields. The Commonwealth leads in this particular field, the universities follow.

In any analysis whatever of the general and medical educational activities of the Psychopathic Department we must acknowledge its premier place in psychiatric instruction, and that policy of the authorities is greatly to be approved which permits its officers to spend time in teaching. After all, these men are full-time men in respect to public service, despite the fact that they are connected with both State institutions and universities. We cannot in Massachusetts now do what the State of Michigan does because we have in Massachusetts developed a system by which universities have divorced themselves from the State. That will render our hospital relations a little more difficult than they are in Michigan, but the same total effect can be gained.

VI. LECTURES AND PUBLICATIONS.

During the year lectures and clinics have been given at the department, as follows: —

A special course arranged by the School of Social Work, Boston, consisted of six talks on social psychiatry, given by Dr. Southard, on six successive Mondays, beginning Jan. 7, 1918, the subjects being —

1. Psychiatry — Public, Social and Individual.
2. The Main Groups of Mental Disease; Medical Point of View.
3. The Main Groups of Mental Disease; Social Point of View.
4. The Sociology of Syphilis.
5. The Physician and the Psychiatric Social Worker.
6. The Field of Social Psychiatry.

Six additional talks along the same lines were given as a continuation of the above course on successive Mondays, beginning Feb. 18, 1918. The course was designed for workers of three years' experience or more in case-work, or its equivalent. A series of ten clinics for social workers of the city was also given by Dr. Myerson.

As in former years a clinic was arranged for Dr. Robert H. Nichols' class of eight or ten students on August 1.

Contributions from the Psychopathic Department to appear in the Bulletin of the Massachusetts Commission on Mental Diseases are as follows for 1918:—

- Annie E. Taft. An Estimation of the Proportions of Gray and White Matter in the Human Brain, made through the Plane of the Optic Chiasm by means of the Planimeter. *Journal of Nervous and Mental Disease*, Vol. XLVII, No. 3, March, 1918.
- E. E. Southard and S. L. Pressey. Remarks on Industrial Accident Board Cases examined at the Psychopathic Hospital.¹
- A. W. Stearns. The Value of Out-patient Work among the Insane. *American Journal of Insanity*, Vol. LXXIV, No. 4, April, 1918.
- L. G. Lowrey. An Analysis of the Accuracy of Early Diagnosis in Psychopathic Patients. *Medicine and Surgery*, March, 1918.
- Mary C. Jarrett. Shell-shock Analogues: Neuroses in Civil Life having a Sudden or Critical Origin. *Medicine and Surgery*, March, 1918.
- L. G. Lowrey. The Psychopathic Hospital Ideal. *The Medical Record*, March 23, 1918.
- L. G. Lowrey and C. E. Smith. Degenerative Chorea (Huntington's Type) with the Serology of General Paresis: Report of Two Cases; One with Autopsy. *American Journal of Syphilis*, Vol. II, No. 3, July, 1918.
- L. G. Lowrey. The Insane Psychoneurotic. *American Journal of Insanity*, Vol. LXXV, No. 1, July, 1918.
- Mary C. Jarrett. Psychiatric Social Work. *Mental Hygiene*, Vol. II, No. 2, April, 1918.
- Donald Gregg. The Diagnosis of Acute Psychotic Conditions. *Medicine and Surgery*, March, 1918.
- E. E. Southard. Remarks on Psychopathic Problems in Industry. *Transactions of American Society of Mechanical Engineers*, 1918.
- H. I. Gosline. Paresis or Dementia Præcox. *Boston Medical and Surgical Journal*, Vol. CLXXVII, No. 10, Sept. 6, 1917, pp. 324-326.
- E. E. Southard and M. M. Canavan. Notes on the Relation of Tuberculosis to Dementia Præcox. *Transactions of Association of American Physicians*, 1917.

¹ Read at annual convention of Industrial Accident Boards and Commissions, Aug. 22, 1917.

- Josephine N. Curtis. Point Scale Examinations of the High-grade Feeble-minded and the Insane.
- L. G. Lowrey. Differential Diagnosis in Psychiatry: a Comparison of Symptoms in Various Diseased States. Boston Medical and Surgical Journal, Vol. CLXXVIII, No. 21, May 23, 1918, pp. 703-708.
- E. E. Southard. Remarks on Advanced Training for Social Workers. Radcliffe Quarterly, February, 1917.
- A. Myerson. The Psychiatric Social Worker. Journal Abnormal Psychology, Vol. XIII, No. 4, October, 1918.
- E. E. Southard. Shell-shock and After. (The Shattuck Lecture.) Boston Medical and Surgical Journal, Vol. CLXXIX, No. 3, July 18, 1918, pp. 73-93.
- E. E. Southard. Insanity *versus* Mental Diseases: the Duty of the General Practitioner in Psychiatric Diagnosis. Journal of the American Medical Association, Vol. LXXI, No. 16, Oct. 19, 1918.
- E. E. Southard. Mental Hygiene and Social Work: Notes on a Course in Social Psychiatry for Social Workers. National Committee for Mental Hygiene, reprint, No. 31.
- L. G. Lowrey. An Analysis of the Accuracy of Psychopathic Hospital Diagnoses.

VII. ALUMNI.¹

NAME.	Position.	Period of Service.	Present Position.
E. E. Southard, M.D.,	Director,	May 1, 1912,	On service.
Arthur P. Noyes, M.D.,	Acting chief executive officer,	April 1, 1917,	On service.
Lawson G. Lowrey, M.D.,	Chief medical officer,	May 29, 1917,	On service.
Clifford G. Rounsefell, M.D.,	Executive officer,	May 15, 1917,	On service.
John H. Travis, M.D.,	Assistant medical officer,	Oct. 8, 1917,	On service.
Richard H. Price, M.D.,	Assistant medical officer,	June 27, 1918,	On service.
Arthur R. Pillsbury, M.D.,	Assistant executive officer,	June 1-Oct. 10, 1918,	-
Eather S. B. Woodward, M.D.,	Assistant medical officer,	June 25, 1918,	On service.
A. Myerson, M.D.,	Chief medical officer, out-patient department.	Nov. 1, 1917,	On service.
Charles E. Sandoz, M.D.,	Assistant medical officer, out-patient department.	April 11, 1916,	On service.
Herman M. Adler, M.D.,	Chief of staff,	June 1, 1912-Sept. 19, 1916,	State criminologist, Illinois, and director of Juvenile Psychopathic Institute, Chicago, Ill.; major, Medical Reserve Corps, N. A.
S. E. Vosburgh, M.D.,	Executive assistant,	June 1-Dec. 1, 1912,	Assistant superintendent, Augusta State Hospital, Augusta, Me.
V. V. Anderson, M.D.,	Out-patient physician,	Oct. 1, 1912-Oct. 1, 1913,	Medical probation officer, municipal court, Boston, Mass.
Geo. E. Eversole, M.D.,	Interne and assistant physician,	August, 1912-March, 1914,	In charge of special mental patient.
Wm. P. Lucas, M.D.,	Chief of out-patient staff,	Oct. 1, 1912-June 21, 1913,	Professor of pediatrics, University of California; chief of Children's Bureau, American Red Cross, France.
Thos. H. Haines, M.D.,	Assistant physician,	June 16, 1913-Sept. 1, 1914,	Medical director, Juvenile Research Bureau, Columbus, Ohio.
Frankwood E. Williams, M.D.,	Assistant physician,	June 16, 1913-May 12, 1914,	Associate medical director, National Committee for Mental Hygiene; major, Medical Reserve Corps, S. G. O.
Robert M. Yerkes, Ph.D.,	Psychologist,	March, 1913-Aug. 31, 1914,	Professor-elect, psychology, University of Minnesota; major, Staff Corps, N. A.

James F. McFadden, M.D.,	Interne and assistant physician,	June 23, 1913-April 15, 1915,	Lieutenant, Medical Reserve Corps, N. A.
Harry C. Solomon, M.D.,	Interne and assistant physician,	Sept. 1, 1913-Nov. 15, 1915,	Special investigator, brain syphilis, Massachusetts Commission on Mental Diseases; lieutenant, Medical Reserve Corps, N. A., Base Hospital No. 115, France.
Harriet M. Gervais, M.D.,	Interne and assistant physician,	Aug. 15, 1913-July 14, 1916,	Medical inspector, ungraded schools, New York City.
Geneva Tryon, M.D.,	Assistant physician,	March 15-Sept. 15, 1914,	Assistant physician, Pontiac State Hospital, Pontiac, Mich.
Anna C. Wellington, M.D.,	Executive assistant,	May 1, 1914-May 15, 1917,	American Red Cross, Paris, France.
Wm. A. MacIntyre, M.D.,	Interne and assistant physician,	May 19, 1914-Oct. 1, 1915,	Assistant physician, Grafton State Hospital, Worcester, Mass.
Cornelia B. J. Schorer, M.D.,	Interne and junior assistant physician,	July 5, 1914-July 15, 1916,	Resident physician, psychopathic Hospital, Bedford Hills Reformatory, New York.
Edward T. Gibson, M.D.,	Interne and assistant physician,	Dec. 1, 1914-July 18, 1916,	Clinical director and pathologist, Connecticut State Hospital, Middletown, Conn.
Geo. E. McPherson, M.D.,	Junior assistant and assistant physician,	June 30, 1915-May 24, 1916,	Assistant superintendent, Medfield State Hospital, Harding, Mass.; major, Medical Reserve Corps.
Gertrude G. Fisher, M.D.,	Interne and junior assistant physician,	Aug. 1, 1915-July 31, 1916,	Instructor in Laboratory Technique, Army Medical School.
Elisha H. Cohoon, M.D.,	Administrator,	Aug. 21, 1915-April 1, 1917,	Superintendent, Medfield State Hospital, Harding, Mass.
A. Warren Stearns, M.D.,	Out-patient physician,	Nov. 15, 1915-Aug. 20, 1917,	Lieutenant, Navy Medical Corps, San Francisco, Cal.
James T. Adams, M.D.,	Assistant physician,	Dec. 10, 1915-May 19, 1917,	Assistant physician, Worcester State Hospital, Worcester, Mass.
Heman L. Chase, M.D.,	State Board of Insanity training course;	Jan. 20-July 31, 1916,	Resident physician, Herbert Hall Hospital, Worcester, Mass.
Eleanor M. Slater, M.D.,	Graduate interne,	Sept. 1, 1916-March 30, 1917,	Instructor of medicine, Woman's Medical School, Philadelphia, Pa.
Marion H. Rea, M.D.,	Assistant physician,	Nov. 1, 1916-April 30, 1917,	- - - - -
Lillian MacPhee, M.D.,	Assistant medical officer,	May 15, 1917-May 17, 1918,	- - - - -
Oscar J. Raeder, M.D.,	Assistant medical officer,	Nov. 1, 1917-July 31, 1918,	Assistant pathologist, Massachusetts Commission on Mental Diseases, and pathologist, Boston State Hospital, Boston, Mass.

¹ Including medical officers connected with the department for six months full time or its equivalent.

Psychopathic Department Workers who have gone into Military Service since Dec. 1, 1917.

- E. E. Southard, M.D., major, Chemical Warfare Service.
Arthur F. G. Edgelow, M.D., Army Medical Corps, Canada.
Harry C. Solomon, M.D., lieutenant, Medical Reserve Corps, Base Hospital No. 115, American Expeditionary Force, France.
Gertrude P. Garvin, superintendent of nurses, Base Hospital No. 8, American Expeditionary Force, France.
M. E. Tilley, nurse, Base Hospital No. 117, American Expeditionary Force, France.
John H. Norton, assistant supervisor, Army Medical Corps, St. Elizabeth's Hospital, Washington, D. C.
W. L. Barker, attendant, Company D, 101st Infantry.
E. N. Thresher, attendant, Company D, 101st Infantry.
H. A. McAleer, attendant, 103d Infantry, 26th Division.
H. E. White, attendant, Army Medical Corps, Fort McPherson, Virginia.
J. Wilcox, attendant, Army Medical Corps, Fort Andrews, Massachusetts.
W. R. Rockwell, attendant, 104th Massachusetts Regiment.
W. V. Costello, attendant.
J. F. Costello, attendant, Army Medical Corps, Camp Devens, Massachusetts.
W. Halpin, attendant, General Hospital No. 1, Medical Corps.
F. Bentley, attendant, Canadian Expeditionary Force.
R. C. Fort, attendant, Company D, 101st Infantry.
J. Quigley, attendant, 1st Canadian Ambulance Corps.
H. Wyrong, porter, truck driver, Camp Devens, Massachusetts.
Thomas Flynn, porter.
Patrick Curran, porter, United States Navy.
Ruth Ahearn, stenographer, yeowoman, United States Navy.

VIII. ACKNOWLEDGMENTS.

I have the duty and pleasure of acknowledging numerous gifts to the hospital, as follows:—

Mrs. Fiske, Mrs. O. R. Lincoln, Mrs. W. A. Charlton, Mr. A. Seaman, Mrs. A. B. Bennett, Miss Edith Hayes, Miss Oakes, periodicals; Mrs. Woolsey Hopkins, Mrs. Horatio A. Lamb, books; Mrs. McMullin, books and magazines; Mrs. McClellan, flowers; Miss Katherine C. Bailey, Miss Amelia M. Baldwin, Mrs. Philip Carter, Miss Helen Hershey, clothing; Mrs. Wm. M. Cole, Mrs. Sydney Stevens, go-carts; Knights of Columbus, cigars and cigarettes; Waitt & Bond, cigars; Mrs. Nelson Whitney, use of automobile two days a week for two months; Miss Sarah Codman, Mrs. Dudley B. Fay, Mrs. P. W. Carter, Miss Mary Pratt, Mrs. T. B. Powell, Miss Frances Morse,

Dorothy Q. Hale, Mr. Arthur Lewis, Anonymous (in response to appeal in "Boston Transcript"), sums of money; Mr. Bertram Filene, Adjutant Eckerle, Lend-a-Hand, Girls' Parole Department, Invalid Aid Society, money for special patients; Frederick E. Webber Charities Corporation, fund for incidental expenses in care of patients; American Red Cross, money for wool.

The Permanent Charity Fund, Incorporated (Boston Safe Deposit and Trust Company, trustee), has contributed \$1,875 — three quarterly payments of an appropriation of \$2,500 — to pay the salaries of special social workers for the care and study of patients having difficulties in employment, and for care and prophylaxis for syphilitic patients and their families.

Respectfully submitted,

E. E. SOUTHARD, M.D.

VALUATION.

Nov. 30, 1918.

REAL ESTATE.

Land (234.91 acres),	\$508,500 00
Buildings,	2,488,403 92

 \$2,996,903 92

PERSONAL PROPERTY.

Travel, etc.,	\$5,506 95
Food,	16,405 33
Clothing,	16,800 57
Furnishings,	121,866 57
Heat, light and power,	101,432 75
Repairs and improvements,	8,263 11
Farm, stable and grounds,	26,845 84
Medical and general care,	13,075 10

 \$310,196 22

SUMMARY.

Real estate,	\$2,996,903 92
Personal property,	310,196 22

 \$3,307,100 14

TREASURER'S REPORT.

To the Trustees of the Boston State Hospital.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1918:—

CASH ACCOUNT.			
Balance Dec. 1, 1917,			\$22,662 40
<i>Receipts.</i>			
<i>Institution Receipts.</i>			
Board of inmates:—			
Private,	\$22,371	50	
Reimbursements, insane,	26,910	25	
			<hr/>
			\$49,281 75
Sales:—			
Food,	\$1,399	74	
Clothing and materials,	167	71	
Furnishings and household supplies,	144	14	
Heat, light and power,	15	25	
Farm and stable:—			
Pigs and hogs,	\$345	15	
Sundries,	1,094	42	
			<hr/>
			1,439 57
Miscellaneous,	245	53	
Repairs, ordinary,	1,159	61	
			<hr/>
			4,571 55
Miscellaneous receipts:—			
Interest on bank balances,	\$420	51	
Sundries,	570	00	
			<hr/>
			990 51
			<hr/>
			54,843 81
<i>Receipts from Treasury of Commonwealth.</i>			
Maintenance appropriations:—			
Balance of 1917,			\$5,219 14
Advance money (amount on hand November 30),			25,000 00
Approved schedules of 1918,	\$702,833	88	
Less returned,	26	88	
			<hr/>
			702,807 00
			<hr/>
			733,026 14
Special appropriations,			151,053 39
Industries appropriation,			143 39
			<hr/>
Total,			\$961,729 13

Payments.

To treasury of Commonwealth, institution receipts,		\$54,843 81	
Maintenance appropriations: —			
Balance November schedule, 1917,	\$27,881 54		
Eleven months' schedules, 1918,	702,807 00		
November advances,	23,690 89		
			754,379 43
Special appropriations: —			
Approved schedules,			151,053 39
Industries appropriation: —			
Approved schedules, eleven months, 1918,	\$143 39		
November advances,	114 22		
			257 61
Balance, Nov. 30, 1918: —			
In bank,	\$495 10		
In office,	699 79		
			1,194 89
Total,			\$961,729 13

MAINTENANCE.

Appropriation, current year,	\$779,247 30	
Balance from previous year, brought forward,	190 28	
Total,	\$779,437 58	
Expenses (as analyzed below),	768,278 65	
Balance reverting to treasury of Commonwealth,	\$11,158 93	

Analysis of Expenses.

Salaries, wages: —		
James V. May, M.D., superintendent,	\$5,000 00	
General administration,	82,509 12	
Medical service,	41,667 69	
Ward service (male),	32,347 60	
Ward service (female),	63,737 76	
Repairs,	12,629 93	
Farm and stable,	10,627 19	
Grounds,	1,070 78	
		\$249,590 07
Religious instruction: —		
Catholic,	\$902 00	
Jewish,	290 00	
Protestant,	306 00	
		1,498 00
Travel, transportation and office expenses: —		
Advertising,	\$117 09	
Automobiles,	3,838 87	
Automobile repairs and supplies,	4,279 19	
Postage,	1,379 27	
Printing and binding,	1,899 67	
Amounts carried forward,	\$11,514 09	\$251,088 07

<i>Amounts brought forward,</i>	\$11,514 09	\$251,088 07
Travel, transportation and office expenses — <i>Con.</i>		
Stationery and office supplies,	3,417 05	
Telephone and telegraph,	1,473 78	
Travel,	1,137 13	
Freight,	64 97	
		17,607 02
Food: —		
Butter,	\$5,124 96	
Butterine,	9,575 69	
Beans,	2,610 30	
Bread, crackers, etc.,	754 11	
Canned soups,	34 54	
Cereals, rice, meal, etc.,	4,641 11	
Cheese,	1,940 98	
Eggs,	8,943 15	
Flour,	26,059 60	
Fish (fresh, cured and canned),	10,218 49	
Fruit (fresh),	2,531 19	
Fruit (dried and preserved),	4,635 06	
Lard and substitutes,	1,639 00	
Macaroni and spaghetti,	210 82	
Meats,	49,722 58	
Milk (fresh and substitutes),	31,087 42	
Molasses and syrups,	531 59	
Peanut butter, pie filling, etc.,	328 08	
Potatoes,	3,671 70	
Seasonings and condiments,	1,445 69	
Sugar,	5,269 08	
Tea, coffee, cocoa, etc.,	3,439 05	
Vegetables (fresh),	196 42	
Vegetables (canned and dried),	1,822 21	
Yeast, baking powder, etc.,	624 69	
Freight,	147 10	
		177,204 61
Clothing and materials: —		
Boots, shoes and rubbers,	\$3,077 56	
Clothing (outer),	5,641 04	
Clothing (under),	2,752 17	
Dry goods for clothing,	5,412 49	
Hats and caps,	51 34	
Leather and shoe findings,	494 75	
Machinery for manufacturing,	189 97	
Socks and smallwares,	1,361 73	
Freight,	15 30	
Materials for manufacturing,	449 95	
		19,446 30
Furnishings and household supplies: —		
Beds, bedding, etc.,	\$12,879 75	
Carpets, rugs, etc.,	1,470 56	
Crockery, glassware, cutlery, etc.,	2,651 82	
Dry goods and smallwares,	210 22	
Fire hose and extinguishers,	94 23	
<i>Amounts carried forward,</i>	\$17,306 58	\$465,346 00

<i>Amounts brought forward,</i>	\$17,306 58	\$465,346 00
Furnishings and household supplies — <i>Con.</i>		
Furniture, upholstery, etc.,	2,586 63	
Kitchen and household wares, .	5,661 22	
Laundry supplies and materials, .	5,145 27	
Lavatory supplies and disinfectants, .	1,393 09	
Machinery for manufacturing, .	74 92	
Table linen, paper napkins, towels, etc., .	2,847 76	
Freight, .	80 50	
Electric lamps, .	1,046 99	
Materials for manufacturing, .	2,942 34	
		39,085 30
Medical and general care: —		
Books, periodicals, etc., .	\$330 25	
Entertainments, games, etc., .	698 82	
Funeral expenses, .	92 05	
Gratuities, .	434 64	
Ice and refrigeration, .	132 50	
Laboratory supplies, apparatus and X-ray, .	2,799 77	
Medicines (supplies and apparatus), .	4,744 43	
Medical attendance (extra), .	1,062 18	
Patients boarded out, .	657 50	
Return of runaways, .	15 73	
School books and supplies, .	79 84	
Sputum cups, etc., .	99	
Tobacco, pipes, matches, .	1,012 17	
Trunks, handbags, etc., .	17 10	
Water, .	6,225 40	
Freight, .	58 29	
Rent, .	900 00	
		19,261 66
Heat, light and power: —		
Coal, .	\$193,159 86	
Freight on coal and other expenses, .	8,020 99	
Electricity, .	117 23	
Gas, .	812 52	
Oil, .	582 54	
Operating supplies for boilers and engines, .	258 31	
Sundries, .	138 54	
		203,089 99
Farm and stable: —		
Blacksmithing and supplies, .	\$749 61	
Carriages, wagons and repairs, .	1,239 30	
Fencing materials, .	6 37	
Fertilizers, .	759 00	
Grain, etc., .	5,236 08	
Harnesses and repairs, .	264 55	
Horses and hire, .	674 00	
Labor (not on pay roll), .	795 40	
Spraying materials, .	174 23	
Stable and barn supplies, .	29 48	
Tools, implements, machines, etc., .	590 99	
<i>Amounts carried forward,</i>	\$10,519 01	\$726,782 95

Amounts brought forward,	\$10,519 01	\$726,782 95
Farm and stable — <i>Con.</i>		
Trees, vines, seeds, etc.,	565 60	
Veterinary services, supplies, etc.,	282 04	
Freight,	2 21	
		11,368 86
Grounds: —		
Road work and materials,	\$125 04	
Tools, implements, machines, etc.,	231 58	
Trees, vines, shrubs, seeds, etc.,	286 78	
Freight,	5 16	
Spraying materials,	225 12	
Tile, pipe, etc.,	18 96	
		892 64
Repairs, ordinary: —		
Brick,	\$379 63	
Cement, lime, crushed stone, etc.,	779 64	
Electrical work and supplies,	1,876 52	
Hardware, iron, steel, etc.,	2,620 12	
Labor (not on pay roll),	347 21	
Lumber, etc. (including finished products),	1,138 41	
Paint, oil, glass, etc.,	4,281 45	
Plumbing and supplies,	5,225 16	
Roofing and materials,	42 57	
Steam fittings and supplies,	3,986 12	
Tools, machines, etc.,	548 20	
Boilers, repairs,	952 08	
Engine, repairs,	457 27	
Vault doors,	115 00	
Freight,	56 21	
Moving buildings,	1,030 00	
Guards,	863 00	
Terrazzo work,	160 00	
		24,858 59
Repairs and renewals: —		
Roofing,	\$148 96	
Dumb waiter,	900 00	
Storage of coal,	3,326 65	
		4,375 61
Total expenses for maintenance,		\$768,278 65

SPECIAL APPROPRIATIONS.		
Balance Dec. 1, 1917,		\$97,364 02
Appropriations for fiscal year,		397,500 00
Total,		\$494,864 02
Expended during the year,		151,053 39
Balance Nov. 30, 1918,		\$343,810 63

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$1,194 89	
November cash vouchers (paid from advance money):—		
Account of maintenance,	\$23,690 89	
Account of industries,	114 22	
	<hr/>	23,805 11
Due from treasury of Commonwealth from avail- able appropriation account November, 1918, schedule:—		
Maintenance,	40,471 65	
Industries,	114 22	
	<hr/>	\$65,585 87

Liabilities.

Schedule of November bills:—		
Maintenance,	\$65,471 65	
Industries,	114 22	
	<hr/>	\$65,585 87

PER CAPITA.

During the year the average number of inmates has been 1,619.64.
 Total cost for maintenance, \$768,278.65.
 Equal to a weekly per capita cost of \$9.122.
 Receipt from sales, \$4,571.55.
 Equal to a weekly per capita of \$0.054.
 All other institution receipts, \$50,272.26.
 Equal to a weekly per capita of \$0.597.

INDUSTRIES FUND.

Appropriation,	\$260 00
Expenditures, approved schedules (see statement annexed),	\$257 61
Balance reverting to treasury of the Commonwealth,	2 39
	<hr/>
	\$260 00

Expenditures.

Tools and machinery:—		
Darners,	\$0 88	
Hooks,	1 49	
Needles,	22 26	
Scissors,	2 23	
Shuttles,	74	
Patterns,	1 80	
	<hr/>	\$29 40
Materials:—		
Braid,	\$0 64	
Cane,	17 50	
Cotton,	24 89	
Dowels,	90	
Dyes,	9 65	
	<hr/>	
Amounts carried forward,	\$53 58	\$29 40

STATISTICAL TABLES

AS ADOPTED BY AMERICAN MEDICO-PSYCHOLOGICAL
ASSOCIATION.

PRESCRIBED BY MASSACHUSETTS COMMISSION ON MENTAL DISEASES.

TABLE 1. — *General Information.*

1. Date of opening as an institution for the insane:	Dec. 11, 1839.
2. Type of institution:	State.
3. Hospital plant: —	
Real estate, including buildings,	\$2,996,903 92
Personal property,	310,196 22
Total,	\$3,307,100 14
Total acreage of hospital property,	234.91.
Acreage under cultivation during previous year,	about 60.

4. Medical service: —	Men.	Women.	Total.
Superintendent,	1	—	1
Assistant superintendent,	1	—	1
Assistant physicians,	11	5	16
Director, psychopathic department,	1	—	1
Chief executive officer, psychopathic department,	1	—	1
Chief medical officer, psychopathic department,	1	—	1
Chief medical officer, out-patient department, psychopathic department,	1	—	1
Medical internes,	1	1	2
Total physicians,	18	6	24

5. Employees on pay roll: —	Men.	Women.	Total.
Graduate nurses,	—	19	19
Other nurses and attendants,	72	114	186
All other employees,	92	101	193
Total employees,	164	234	398

6. Patients employed in industrial classes or in general hospital work on date of report,	392	383	775
7. Patients in institution on date of report (excluding paroles),	702	938	1,640

TABLE 2. — *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Insane Patient Population Oct. 1, 1917, to Sept. 30, 1918.*

	Males.	Females.	Totals.
1. Insane patients on books of institution at beginning of institution year,	822	973	1,795
Admissions during year: —			
(a) First admissions,	917	825	1,742
(b) Readmissions,	246	196	442
Total admissions,	1,163	1,021	2,184
(c) Transfers from other institutions for the insane,	4	10	14
2. Total received during year,	1,167	1,031	2,198
3. Total under treatment during year,	1,989	2,004	3,993
Discharged from books during year: —			
(a) As recovered,	37	28	65
(b) As improved,	221	151	372
(c) As unimproved,	516	395	911
(d) As not insane,	187	220	407
(e) Transferred to other institutions for the insane,	6	11	17
(f) Died during year,	178	124	302
4. Total discharged and died during year,	1,145	929	2,074
5. Insane patients remaining on books of institution at end of institution year,	844	1,075	1,919
<i>Supplementary Data.</i>			
6. Average daily number of insane patients actually in institution during year,	725.73	871.60	1,597.33
State,	680.26	723.19	1,403.45
Private,	12.31	57.85	70.16
Reimbursing,	33.16	90.56	123.72
7. Average daily number of other insane patients on books but away from institution on —			
Visit,	127.71	143.29	271.00
Escape,	10.90	1.54	12.44
Boarded out,	—	8.06	8.06
8. Insane voluntary patients admitted during year,	199	154	353
Temporary care patients admitted during year,	858	626	1,484
9. Drug cases,	—	—	—
10. Inebriates,	—	—	—
11. Neurological cases,	—	—	—
12. Epileptics (not feeble-minded),	—	—	—
13. Feeble-minded cases (not epileptics),	—	—	—
14. Feeble-minded epileptics,	—	—	—
15. All other cases,	—	—	—
16. Persons given advice or treatment in out-patient department during year,	1,068	1,475	2,543

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions for the Year ending Sept. 30, 1918.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
United States,	521	452	973	268	261	529	225	215	440
Africa,	—	—	—	—	—	—	—	—	—
Asia, ¹	3	1	4	3	3	6	2	2	4
Australia,	—	—	—	1	—	1	—	—	—
Austria,	9	3	12	10	11	21	4	5	9
Belgium,	2	1	3	3	3	6	—	—	—
Bohemia,	—	—	—	2	2	4	—	—	—
Canada, ²	50	90	140	77	91	168	92	97	189
Central America,	—	—	—	—	—	—	—	—	—
China,	1	—	1	1	1	2	—	—	—
Cuba,	—	—	—	—	—	—	—	—	—
Denmark,	2	2	4	1	1	2	2	2	4
England,	24	14	38	38	37	75	33	29	62
Europe, ¹	9	1	10	7	7	14	—	—	—
Finland,	4	3	7	3	4	7	4	4	8
France,	2	2	4	4	3	7	2	3	5
Germany,	19	10	29	31	27	58	24	25	49
Greece,	12	3	15	12	12	24	2	2	4
Hawaii,	—	—	—	—	—	—	—	—	—
Holland,	1	—	1	3	2	5	2	1	3
Hungary,	3	—	3	3	3	6	—	—	—
India,	1	—	1	1	1	2	—	—	—
Ireland,	74	126	200	184	186	370	216	222	438
Italy,	53	25	78	59	57	116	32	30	62
Japan,	—	—	—	—	—	—	—	—	—
Mexico,	1	—	1	1	1	2	—	—	—
Norway,	5	2	7	4	5	9	2	2	4
Philippine Islands,	1	—	1	1	1	2	—	—	—
Poland,	11	3	14	14	12	26	3	3	6
Porto Rico,	—	—	—	—	—	—	—	—	—
Portugal,	3	1	4	6	5	11	3	4	7
Roumania,	—	—	—	—	—	—	—	—	—
Russia,	69	41	110	86	81	167	59	58	117
Scotland,	7	3	10	15	11	26	19	15	34
Born at sea,	—	—	—	—	—	—	—	1	1
Spain,	2	4	6	3	2	5	7	5	12
Sweden,	15	16	31	22	20	42	19	20	39
Switzerland,	—	—	—	1	2	3	—	—	—
Turkey in Asia,	—	1	1	—	—	—	1	1	2
Turkey in Europe,	6	1	7	6	6	12	3	3	6
Wales,	—	3	3	—	1	1	—	1	1
West Indies, ³	3	9	12	4	4	8	8	8	16
Other countries,	—	—	—	—	—	—	—	—	—
Unascertained,	4	8	12	43	54	97	61	67	128
Total,	917	825	1,742	917	917	1,834	825	825	1,650

¹ Not otherwise specified.² Includes Newfoundland.³ Except Cuba and Porto Rico.TABLE 5. — *Citizenship of First Admissions for the Year ending Sept. 30, 1918.*

	Males.	Females.	Totals.
Citizens by birth,	523	482	1,005
Citizens by naturalization,	46	18	64
Aliens,	298	284	582
Citizenship unascertained,	50	41	91
Total,	917	825	1,742

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1918.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,				6	—	6
2. Senile, total,				26	55	81
(a) Simple deterioration,	12	44	56			
(b) Presbyophrenic type,	5	—	5			
(c) Delirious and confused states,	2	2	4			
(d) Depressed and agitated states in addition to deterioration,	1	2	3			
(e) Paranoid states in addition to deterioration,	6	7	13			
(f) Presenile types,	—	—	—			
3. With cerebral arteriosclerosis,				54	53	107
4. General paralysis,				121	21	142
5. With cerebral syphilis,				15	14	29
6. With Huntington's chorea,				1	—	1
7. With brain tumor,				2	1	3
8. With other brain or nervous diseases, total,				8	10	18
Cerebral embolism,	—	—	—			
Paralysis agitans,	—	—	—			
Meningitis, tuberculous or other forms,	—	—	—			
Multiple sclerosis,	—	—	—			
Tabes,	—	1	1			
Acute chorea,	1	2	3			
Other conditions,	7	7	14			
9. Alcoholic, total,				94	23	117
(a) Pathological intoxication,	—	—	—			
(b) Delirium tremens,	32	7	39			
(c) Acute hallucinosis,	8	6	14			
(d) Acute paranoid type,	29	9	38			
(e) Korsakow's psychosis,	5	—	5			
(f) Chronic hallucinosis,	1	—	1			
(g) Chronic paranoid type,	2	—	2			
(h) Alcoholic deterioration,	15	1	16			
(i) Other types, acute or chronic,	2	—	2			
10. Due to drugs and other exogenous toxins, total,				2	1	3
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	1	1	2			
(b) Metals, as lead, arsenic, etc.,	—	—	—			
(c) Gases,	—	—	—			
(d) Other exogenous toxins,	—	—	—			
Trinitrotoluol,	1	—	1			
11. With pellagra,				—	1	1
12. With other somatic diseases, total,				24	17	41
(a) Delirium with infectious diseases,	8	11	19			
(b) Post-infectious psychoses,	—	2	2			
(c) Exhaustion delirium,	2	—	2			
(d) Delirium of unknown origin,	—	—	—			
(e) Diseases of the ductless glands,	—	—	—			
(f) Cardiorenal disease,	11	2	13			
(g) Other diseases or conditions,	3	2	5			
13. Manic-depressive, total,				61	76	137
(a) Manic type,	23	28	51			
(b) Depressive type,	35	34	69			
(c) Stupor,	—	—	—			
(d) Mixed type,	3	14	17			
(e) Circular type,	—	—	—			
14. Involution melancholia,				4	16	20

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1918 — Concluded.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total,				213	202	415
(a) Paranoid type,	117	109	226			
(b) Katatonic type,	36	31	67			
(c) Hebephrenic type,	50	58	108			
(d) Simple type,	10	4	14			
16. Paranoia and paranoic conditions,				21	32	53
17. Epileptic, total,				18	7	25
(a) Deterioration,	8	6	14			
(b) Clouded states,	10	1	11			
(c) Other conditions,	—	—	—			
18. Psychoneuroses and neuroses, total,				25	32	57
(a) Hysterical type,	12	21	33			
(b) Psychasthenic type,	7	5	12			
(c) Neurasthenic type,	6	6	12			
(d) Anxiety neuroses,	—	—	—			
19. With constitutional psychopathic inferiority,				—	2	2
20. With mental deficiency,				2	1	3
21. Undiagnosed,				48	50	98
22. Not insane, total,				149	191	340
(a) Epilepsy without psychosis,	12	17	29			
(b) Alcoholism without psychosis,	24	10	34			
(c) Drug addiction without psychosis,	2	1	3			
(d) Constitutional psychopathic inferiority without psychosis,	41	86	127			
(e) Mental deficiency without psychosis,	42	53	95			
(f) Others: —						
Headaches,	1	—	1			
Arteriosclerosis,	8	2	10			
Syphilis,	2	—	2			
Organic brain disease,	5	3	8			
Organic cord, disease,	1	—	1			
Epidemic cerebrospinal meningitis,	1	—	1			
Cardiorenal disease,	1	1	2			
Conduct disorder,	4	11	15			
Suicidal attempt,	1	—	1			
Brain tumor,	1	—	1			
Tabes dorsalis,	1	—	1			
Chorea,	1	—	1			
Hysteria,	—	1	1			
Graves' disease,	—	3	3			
Depression,	—	1	1			
Multiple sclerosis,	—	1	1			
Neurosyphilis,	1	1	2			
23. No diagnosis,				23	20	43
Total,				917	825	1,742

TABLE 7. — Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.

RACE.	TOTAL.			PSYCHOSES.						WITH CEREBRAL SYPHILIS.			WITH HUNTINGTON'S CHOREA.			WITH BRAIN TUMOR.		
	Males.	Females.	Totals.	TRAUMATIC.			SENILE.			WITH CEREBRAL ARTERIO-SCLEROSIS.			GENERAL PARALYSIS.			Males.	Females.	Totals.
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black),	20	38	58	-	-	-	1	1	2	-	-	-	2	1	3	-	-	-
American Indian,	-	-	-	-	-	-	-	-	-	5	5	10	-	-	-	-	-	-
Armenian,	4	3	7	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Bulgarian,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cuban,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dutch and Flemish,	3	1	4	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
East Indian,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English,	283	245	528	2	26	28	4	22	26	20	16	36	44	6	50	6	6	12
Finnish,	4	4	8	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1
French,	13	19	32	-	1	1	1	1	2	1	1	2	7	1	8	1	1	2
German,	32	23	55	-	-	-	1	-	1	1	1	2	3	3	6	1	3	4
Greek,	14	2	16	-	-	-	-	-	-	1	3	4	6	1	7	1	6	7
Hebrew,	64	54	118	1	1	2	9	23	32	2	20	22	28	9	37	1	7	38
Irish,	234	279	513	2	3	5	2	1	3	2	1	3	11	11	22	-	-	23
Italian, ¹	62	33	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Japanese,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian,	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magyar,	5	2	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mexican,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Islander,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese,	7	10	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rumanian,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian, ²	25	24	49	1	2	3	-	-	-	1	2	3	3	-	3	-	-	3

TABLE 8. — Age of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.

PSYCHOSES.	T TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	—	6	—	—	2	—	—	2	1	—	1	—	—	—	—	2	—	—	—	—	—	—	—
2. Senile,	26	55	81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	54	53	107	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis,	121	21	142	1	—	1	—	—	—	2	—	2	2	2	4	15	3	18	20	6	26	1	2	29
5. With cerebral syphilis,	15	14	29	1	—	—	1	—	—	1	1	2	1	1	2	2	3	5	2	3	3	2	4	6
6. With Huntington's chorea,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	8	10	18	—	—	1	1	2	—	1	1	2	—	—	13	17	4	21	10	7	17	19	—	1
9. Alcoholic,	94	23	117	—	—	—	—	—	—	5	—	5	—	—	2	15	7	24	10	7	17	19	—	1
10. Due to drugs and other exogenous toxins,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	24	17	41	2	—	2	—	—	—	—	—	—	3	5	8	—	—	—	4	1	5	—	—	2
13. Manic-depressive,	61	76	137	2	—	2	2	4	6	8	5	13	10	13	23	5	9	14	6	7	13	6	11	17
14. Involution melancholia,	4	16	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
15. Dementia praecox,	213	202	415	3	—	3	26	30	56	62	42	104	54	36	90	35	29	64	13	29	42	12	16	28
16. Paranoia or paranoid conditions,	21	32	53	—	—	—	1	1	2	5	1	6	1	1	2	3	2	5	3	1	4	5	9	2
17. Epileptic,	18	7	25	1	—	1	1	1	2	4	8	12	8	5	13	3	2	5	6	9	15	2	3	5
18. Psychoneuroses and neuroses,	25	32	57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	2	1	3	—	—	—	9	2	11	5	6	11	7	6	13	6	7	13	4	7	11	3	7	10
21. Undiagnosed,	48	50	98	1	—	1	20	67	87	21	36	57	15	14	29	20	14	34	7	13	20	6	15	21
22. Not insane,	149	191	340	17	12	29	20	67	87	21	36	57	15	14	29	20	14	34	7	13	20	6	15	21
23. No diagnosis,	23	20	43	—	—	—	1	2	3	1	2	3	3	3	6	1	—	1	2	3	5	4	9	—
Total,	917	825	1,742	27	13	40	64	109	173	115	106	221	117	88	205	111	75	186	80	88	168	90	75	165

TABLE 8. — Age of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918 — Concluded.

PSYCHOSES.	YEARS.												UNASCERTAINED.									
	45-49.			50-54.			55-59.			60-64.			65-69.			70 AND OVER.			Males.	Females.	Totals.	
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	
1. Traumatic,	1	1	2	1	1	2	1	1	2	3	5	6	11	4	11	15	14	37	51	1	1	2
2. Senile,	1	1	2	7	5	12	7	8	15	16	10	26	8	11	19	14	18	32	1	1	2	
3. With cerebral arteriosclerosis,	23	2	25	15	2	17	12	1	12	1	2	3	2	1	3	1	1	2	1	1	2	
4. General paralysis,	4	1	5	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	
5. With cerebral syphilis,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	
6. With Huntington's chorea,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	
7. With brain tumor,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	
8. With other brain or nervous diseases,	11	4	15	3	5	8	1	2	3	4	5	9	2	1	3	1	1	2	1	1	2	
9. Alcoholic,	1	1	2	11	1	12	1	3	4	1	1	2	2	1	3	1	1	2	1	1	2	
10. Due to drugs and other exogenous toxins,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	
11. With pellagra,	2	1	3	2	1	3	4	4	8	4	4	8	1	1	2	2	2	4	1	1	2	
12. With other somatic diseases,	6	8	14	7	7	14	4	5	9	3	6	9	2	2	4	1	1	2	1	1	2	
13. Manic-depressive,	1	1	2	3	5	8	2	2	4	1	2	3	1	1	2	1	1	2	1	1	2	
14. Involution melancholia,	3	1	4	3	4	7	2	1	3	1	1	2	1	1	2	1	1	2	1	1	2	
15. Dementia precox,	4	8	12	6	7	13	1	5	6	1	2	3	1	1	2	1	2	3	1	1	2	
16. Paranoia or paranoic conditions,	1	1	2	3	1	4	1	1	2	1	1	2	1	1	2	1	2	3	1	1	2	
17. Epileptic,	1	1	2	3	1	4	1	1	2	1	1	2	1	1	2	1	2	3	1	1	2	
18. Psychoneuroses and neuroses,	1	1	2	3	1	4	1	1	2	1	1	2	1	1	2	1	2	3	1	1	2	
19. With constitutional psychopathic inferiority,	1	1	2	3	1	4	1	1	2	1	1	2	1	1	2	1	2	3	1	1	2	
20. With mental deficiency,	5	6	11	4	7	11	3	1	4	1	1	2	1	1	2	1	2	3	1	1	2	
21. Undiagnosed,	8	7	15	14	4	18	8	3	11	3	2	5	6	2	8	1	4	5	1	1	2	
22. Not insane,	1	1	2	5	1	6	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	
23. No diagnosis,	71	54	125	85	51	136	49	36	85	44	35	79	27	31	58	37	62	99	1	2	3	
Total,	71	54	125	85	51	136	49	36	85	44	35	79	27	31	58	37	62	99	1	2	3	

TABLE 9. — Degree of Education of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.

PSYCHOSES.	TOTAL.			ILLITERATE.			READS AND WRITES.			COMMON SCHOOL.			HIGH SCHOOL.			COLLEGE.			UNACCOMMODATED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	—	6	—	—	—	—	—	—	5	—	5	—	—	—	—	—	—	1	—	1
2. Senile,	26	55	81	2	15	17	3	4	7	16	23	39	3	4	7	2	8	10	2	9	10
3. With cerebral arteriosclerosis,	54	53	107	4	8	12	7	9	16	30	21	51	7	6	13	4	9	13	4	9	13
4. General paralysis,	121	21	142	11	1	12	12	4	16	65	10	75	13	4	17	3	2	19	17	2	19
5. With cerebral syphilis,	15	14	29	2	—	—	—	—	—	1	—	1	1	—	—	—	—	5	2	3	5
6. With Huntington's chorea,	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
7. With brain tumor,	2	1	3	1	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	8	10	18	1	—	—	2	2	2	4	6	10	1	—	—	1	—	—	1	—	—
9. Alcoholic,	94	23	117	7	1	8	12	3	15	59	14	73	6	3	9	1	2	9	7	2	9
10. Due to drugs and other exogenous toxins,	2	1	3	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
11. With pellagra,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	24	17	41	—	—	—	3	3	6	10	11	21	4	—	—	2	—	7	5	—	7
13. Manic-depressive,	61	76	137	4	4	8	5	5	10	31	47	78	9	12	21	8	8	12	4	8	12
14. Involuntary melancholia,	4	16	20	—	—	—	2	3	5	1	10	11	1	—	—	—	—	1	1	—	1
15. Dementia precox,	213	202	415	11	9	20	19	11	30	116	134	250	29	27	56	15	17	40	23	1	40
16. Paranoia or paranoid conditions,	21	32	53	2	—	—	2	4	6	13	25	38	1	3	4	1	—	2	2	—	2
17. Epileptic,	18	7	25	—	—	—	4	1	5	13	5	18	1	—	—	—	—	1	—	—	—
18. Psychoneuroses and neuroses,	25	32	57	1	2	3	5	2	7	13	22	35	5	5	10	1	—	2	—	—	—
19. With constitutional psychopathic inferiority,	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	48	50	98	4	4	8	1	1	2	1	—	1	3	9	12	2	8	3	3	8	11
21. Undiagnosed,	149	191	340	7	17	24	16	14	30	104	128	232	10	17	27	4	15	23	8	15	23
22. Not insane,	23	20	43	1	1	2	1	2	3	7	6	13	1	2	3	1	9	21	12	2	21
23. No diagnosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	917	825	1,742	58	67	125	95	72	167	531	500	1,031	96	92	188	46	7	53	91	87	178

TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	—	9	6	—	6	—	—	—	—	—	—
2. Senile,	26	55	81	26	55	81	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	54	53	107	53	53	106	1	—	1	—	—	—
4. General paralysis,	121	21	142	118	20	138	2	1	3	1	—	1
5. With cerebral syphilis,	15	14	29	14	14	28	1	—	1	—	—	—
6. With Huntington's chorea,	1	—	1	1	—	1	—	—	—	—	—	—
7. With brain tumor,	2	1	3	2	1	3	—	—	—	—	—	—
8. With other brain or nervous diseases,	8	10	18	8	10	18	—	—	—	—	—	—
9. Alcoholic,	94	23	117	92	22	114	2	1	3	—	—	—
10. Due to drugs and other exogenous toxins,	2	2	4	2	2	4	—	—	—	—	—	—
11. With pellagra,	—	1	1	—	1	1	—	—	—	—	—	—
12. With other somatic diseases,	24	17	41	22	16	38	2	1	3	—	—	—
13. Manic-depressive,	61	76	137	58	76	134	3	—	3	—	—	—
14. Involution melancholia,	4	16	20	4	16	20	—	—	—	—	—	—
15. Dementia præcox,	213	202	415	206	198	404	7	4	11	—	—	—
16. Paranoia or paranoid conditions,	21	32	53	21	32	53	—	—	—	—	—	—
17. Epileptic,	18	7	25	18	7	25	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	25	32	57	25	32	57	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	2	2	—	2	2	—	—	—	—	—	—
20. With mental deficiency,	2	1	3	2	1	3	—	—	—	—	—	—
21. Undiagnosed,	48	50	98	46	49	95	2	1	3	—	—	—
22. Not insane,	149	191	340	147	189	336	2	2	4	—	—	—
23. No diagnosis,	23	20	43	22	20	42	1	—	1	—	—	—
Total,	917	825	1,742	893	815	1,708	23	9	32	1	1	2

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.*

PSYCHOSES.	TOTAL.			DEPENDENT.			MARGINAL.			COMFORTABLE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic.	9	55	64	—	—	—	4	—	4	2	—	2	—	—	—
2. Senile.	26	81	107	3	16	19	21	24	45	2	12	14	—	3	3
3. With cerebral arteriosclerosis.	54	53	107	8	12	20	37	24	61	9	13	22	—	4	4
4. General paralysis.	121	21	142	5	1	6	89	19	108	23	—	23	4	1	5
5. With cerebral syphilis.	15	14	29	—	—	—	13	11	24	2	2	4	—	1	1
6. With Huntington's chorea.	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
7. With brain tumor.	2	1	3	1	—	1	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases.	8	10	18	1	1	2	5	7	12	2	2	4	—	—	—
9. Alcoholic.	94	23	117	1	—	1	87	20	107	5	3	8	1	—	1
10. Due to drugs and other exogenous toxins.	2	1	3	—	—	—	2	—	2	—	—	—	—	—	—
11. With pellagra.	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
12. With other somatic diseases.	24	17	41	—	—	—	20	16	36	2	—	2	2	1	3
13. Manic-depressive.	61	76	137	2	1	3	48	66	114	8	8	16	3	1	4
14. Involution melancholia.	4	16	20	—	—	—	3	14	17	1	1	2	—	1	1
15. Dementia præcox.	213	202	415	11	16	27	177	159	336	19	25	44	6	2	8
16. Paranoia or paranoid conditions.	21	32	53	3	3	6	19	22	41	2	7	9	—	—	—
17. Epileptic.	18	7	25	1	1	2	15	6	21	1	—	1	1	—	1
18. Psychoneuroses and neuroses.	25	32	57	3	3	6	18	25	43	3	4	7	—	—	—
19. With constitutional psychopathic inferiority.	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
20. With mental deficiency.	2	1	3	—	—	—	—	1	1	—	—	—	—	—	—
21. Undiagnosed.	48	50	98	—	1	1	45	44	89	3	3	6	—	2	2
22. Not insane.	149	191	340	10	56	66	120	125	245	9	6	15	10	4	14
23. No diagnosis.	23	20	43	—	—	—	15	15	30	2	1	3	6	4	10
Total.	917	825	1,742	48	113	161	740	599	1,339	95	89	184	34	24	58

TABLE 12. — Use of Alcohol by First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.

PSYCHOSES.	TOTAL.			ABSTINENT.			TEMPERATE.			INTERTEMPERATE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	-	6	2	-	2	2	-	2	1	-	1	1	-	1
2. Senile,	26	55	81	7	27	34	8	9	17	7	1	8	4	18	22
3. With cerebral arteriosclerosis,	54	53	107	11	29	40	18	12	30	17	3	20	8	12	20
4. General paralysis,	121	21	142	23	10	33	48	2	50	31	3	34	19	6	25
5. With cerebral syphilis,	15	14	29	3	7	10	6	2	8	4	2	6	2	3	5
6. With Huntington's chorea,	1	-	1	1	-	1	1	1	2	1	-	1	-	-	-
7. With brain tumor,	2	1	3	3	-	3	2	2	4	2	1	3	1	-	4
8. With other brain or nervous diseases,	8	10	18	-	4	4	1	-	1	94	23	117	1	3	-
9. Alcoholic,	94	23	117	3	-	3	1	-	1	-	1	1	1	-	-
10. Due to drugs and other exogenous toxins,	2	1	3	-	-	-	-	-	-	-	-	-	-	-	-
11. With pellagra,	-	1	1	-	1	1	13	-	17	3	1	4	6	-	10
12. With other somatic diseases,	24	17	41	2	8	10	29	10	39	7	2	9	10	20	30
13. Manic-depressive,	61	76	137	15	44	59	1	6	7	-	-	36	-	71	118
14. Involution melancholia,	4	16	20	3	8	11	71	25	96	29	7	36	47	5	9
15. Dementia præcox,	213	202	415	66	99	165	10	11	21	5	5	10	4	4	8
16. Paranoia or paranoid conditions,	21	32	53	2	16	18	5	4	9	5	-	5	3	3	6
17. Epileptic,	18	7	25	5	3	8	6	4	10	1	-	1	6	4	7
18. Psychoneuroses and neuroses,	25	32	57	12	14	26	6	-	6	1	-	1	-	-	20
19. With constitutional psychopathic inferiority,	-	2	2	2	2	4	-	-	-	-	-	-	-	-	-
20. With mental deficiency,	2	1	3	1	1	2	-	-	-	1	-	1	1	1	1
21. Undiagnosed,	48	50	98	13	20	33	10	9	19	14	3	17	11	18	29
22. Not insane,	149	191	340	50	75	125	34	22	56	37	18	55	28	76	104
23. No diagnosis,	23	20	43	6	4	10	3	3	6	4	2	6	10	11	21
Total,	917	825	1,742	225	371	596	268	122	390	263	64	327	161	268	429

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.*

	TOTAL.			SINGLE.			MARRIED.			WIDOWED.			SEPARATED.			DIVORCED.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	—	6	3	—	3	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile,	26	55	81	10	9	19	11	10	21	12	35	47	2	—	2	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	54	53	107	10	14	24	33	17	50	9	20	29	2	—	2	—	—	—	—	—	—
4. General paralysis,	121	21	142	30	3	33	82	10	92	5	6	11	2	—	2	—	—	—	—	—	—
5. With cerebral syphilis,	15	14	29	4	3	7	10	6	16	1	5	6	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	2	1	3	—	—	—	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	8	10	18	2	5	7	5	2	7	1	3	4	—	—	—	—	—	—	—	—	—
9. Alcoholic,	94	23	117	46	5	51	42	11	53	5	5	10	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	2	2	1	—	1	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	24	17	41	8	6	14	13	10	23	3	1	4	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	61	76	137	27	27	54	30	41	71	3	8	11	—	—	—	—	—	—	—	—	—
14. Involution melancholia,	4	16	20	8	8	16	4	5	9	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia precox,	213	202	415	177	120	297	32	70	102	3	6	9	—	—	—	—	—	—	—	—	—
16. Paranoia or paranoid conditions,	21	32	53	9	9	18	9	16	25	3	3	6	1	—	1	—	—	—	—	—	—
17. Epileptic,	18	7	25	11	3	14	7	4	11	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	25	32	57	13	18	31	12	13	25	—	—	—	—	—	—	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	2	1	3	2	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	48	50	98	25	21	46	22	27	49	1	2	3	—	—	—	—	—	—	—	—	—
22. Not insane,	149	191	340	89	126	215	56	51	107	4	11	15	—	—	—	—	—	—	—	—	—
23. No diagnosis,	23	20	43	4	10	14	18	6	24	1	3	4	—	—	—	—	—	—	—	—	—
Total,	917	825	1,742	462	391	853	392	301	693	50	111	161	4	4	8	6	13	19	3	5	8

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1918.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	-	-	-	-	-	-
2. Senile, total,	1	-	1	1	1	2
(a) Simple deterioration,	1	-	1			
(b) Presbyophrenic type,	-	-	-			
(c) Delirious and confused states,	-	-	-			
(d) Depressed and agitated states in addition to deterioration,	-	-	-			
(e) Paranoid states in addition to deterioration,	-	1	1			
(f) Presenile types,	-	-	-			
3. With cerebral arteriosclerosis,	-	-	-	5	3	8
4. General paralysis,	-	-	-	65	6	71
5. With cerebral syphilis,	-	-	-	2	3	5
6. With Huntington's chorea,	-	-	-	-	1	1
7. With brain tumor,	-	-	-	-	1	1
8. With other brain or nervous diseases, total,	-	-	-	-	1	1
Cerebral embolism,	-	-	-			
Paralysis agitans,	-	-	-			
Meningitis, tuberculous or other forms,	-	-	-			
Multiple sclerosis,	-	-	-			
Tabes,	-	-	-			
Acute chorea,	-	1	1			
Other conditions,	-	-	-			
9. Alcoholic, total,	-	-	-	22	6	28
(a) Pathological intoxication,	-	-	-			
(b) Delirium tremens,	3	2	5			
(c) Acute hallucinosis,	14	1	15			
(d) Acute paranoid type,	-	-	-			
(e) Korsakow's psychosis,	-	-	-			
(f) Chronic hallucinosis,	1	2	3			
(g) Chronic paranoid type,	3	-	3			
(h) Alcoholic deterioration,	1	1	2			
(i) Other types, acute or chronic,	-	-	-			
10. Due to drugs and other exogenous toxins, total,	-	-	-	1	2	3
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	1	2	3			
(b) Metals, as lead, arsenic, etc.,	-	-	-			
(c) Gases,	-	-	-			
(d) Other exogenous toxins,	-	-	-			
11. With pellagra,	-	-	-	-	-	-
12. With other somatic diseases, total,	-	-	-	-	-	-
(a) Delirium with infectious diseases,	-	-	-			
(b) Post-infectious,	-	-	-			
(c) Exhaustion delirium,	-	-	-			
(d) Delirium of unknown origin,	-	-	-			
(e) Diseases of the ductless glands,	-	-	-			
(f) Cardioresenal disease,	-	-	-			
(g) Other diseases or conditions,	-	-	-			
13. Manic-depressive, total,	21	25	46	29	50	79
(a) Manic type,	7	16	23			
(b) Depressive type,	-	-	-			
(c) Stupor,	-	-	-			
(d) Mixed type,	1	8	9			
(e) Circular type,	-	1	1			
14. Involution melancholia,	-	-	-	-	7	7

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1918*
— Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total,				67	52	119
(a) Paranoid type,	42	22	64			
(b) Katatonic type,	6	8	14			
(c) Hebephrenic type,	15	20	35			
(d) Simple type,	4	2	6			
16. Paranoia and paranoic conditions,				5	5	10
17. Epileptic, total,				8	2	10
(a) Deterioration,	7	2	9			
(b) Clouded states,	1	—	1			
(c) Other conditions,	—	—	—			
18. Psychoneuroses and neuroses, total,				1	8	9
(a) Hysterical type,	—	5	5			
(b) Psychasthenic type,	1	1	2			
(c) Neurasthenic type,	—	2	2			
(d) Anxiety neuroses,	—	—	—			
19. With constitutional psychopathic inferiority,				1	1	2
20. With mental deficiency,				—	3	3
21. Undiagnosed,				4	7	11
22. Not insane, total,				32	26	58
(a) Epilepsy without psychosis,	5	4	9			
(b) Alcoholism without psychosis,	4	1	5			
(c) Drug addiction without psychosis,	1	—	1			
(d) Constitutional psychopathic inferiority without psychosis,	5	11	16			
(e) Mental deficiency without psychosis,	4	8	12			
(f) Others,	13	2	15			
23. No diagnosis made,				3	11	14
Totals,				246	196	442

TABLE 15. — Discharges of Patients classified with Reference to Principal Psychoses and Condition on Discharge for the Year ending Sept. 30, 1918.

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			NOT INSANE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	4	—	4	—	—	—	2	—	2	2	—	2	—	—	—
2. Senile,	8	17	25	—	—	—	—	—	—	8	13	21	—	—	—
3. With cerebral arteriosclerosis,	34	19	53	—	—	—	12	4	16	20	12	32	1	1	2
4. General paralysis,	127	17	144	—	—	—	8	1	9	119	16	135	—	—	—
5. With cerebral syphilis,	15	12	27	—	—	—	3	1	4	12	11	23	—	—	—
6. With Huntington's chorea,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	1	1	2	—	—	—	—	—	—	1	1	2	—	—	—
8. With other brain or nervous diseases,	10	6	16	1	—	1	—	2	2	9	4	13	—	—	—
9. Alcoholic,	113	35	148	21	12	33	71	15	86	21	8	29	—	—	—
10. Due to drugs and other exogenous toxins,	1	1	2	—	—	—	—	—	—	1	—	1	—	—	—
11. With pellagra,	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,*	7	17	24	—	—	—	4	10	14	3	5	8	—	1	1
13. Manic-depressive,	81	113	194	10	9	19	37	49	86	34	54	88	—	1	1
14. Involution melancholia,	3	10	13	—	—	—	2	2	4	3	8	11	—	—	—
15. Dementia præcox,	231	195	426	2	4	6	38	28	66	187	163	350	4	—	4
16. Paranoia or paranoid conditions,	26	25	51	2	—	2	4	4	8	11	18	29	—	—	—
17. Epileptic,	22	16	38	1	1	2	9	8	17	12	7	19	—	—	—
18. Psychoneuroses and neuroses,	18	26	44	—	—	—	4	6	10	4	5	9	10	15	25
19. With constitutional psychopathic inferiority,	2	2	4	—	—	—	2	—	2	—	—	—	—	—	—
20. With mental deficiency,	1	4	5	—	—	—	—	—	—	1	3	4	—	1	1
21. Undiagnosed,	50	42	92	—	1	1	18	10	28	30	21	51	2	3	5
22. Not insane,	187	216	403	—	—	—	9	9	18	15	28	43	163	194	357
23. No diagnosis made,	19	22	41	—	—	—	—	—	—	12	18	30	7	4	11
Total,	961	794	1,755	37	28	65	221	151	372	516	395	911	187	220	407

TABLE 16. — *Causes of Death of Patients classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1918.*

[illegible]

TABLE 17. — Age of Patients at Time of Death classified with Reference to Principal Psychoses.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-20.			20-25.			25-30.			30-35.			35-40.			40-45.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
2. Senile,	7	30	37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. With cerebral arteriosclerosis,	41	23	64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4. General paralysis,	57	8	65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5. With cerebral syphilis,	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. With Huntington's chorea,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8. With other brain or nervous diseases,	1	5	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9. Alcoholic,	6	2	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. Due to drugs and other exogenous toxins,	7	8	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12. With other somatic diseases,	10	2	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13. Manic-depressive,	1	13	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
14. Involution melancholia,	2	4	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15. Dementia præcox,	26	20	46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
16. Paranoia and paranoic conditions,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
17. Epileptic,	6	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
19. With constitutional psychopathic inferiority,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20. With mental deficiency,	8	2	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21. Undiagnosed,	4	1	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
22. Not insane,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total,	178	124	302	—	—	—	—	—	—	6	4	10	12	4	16	10	3	13	21	9	30	12	7	19

TABLE 18. — Total Duration of Hospital Life of Patients dying in Hospital classified according to Psychoses.

PSYCHOSES.	TOTAL.			MONTHS.											
	Males.	Females.	Totals.	LESS THAN 1.			1-3.			4-7.			8-12.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile,	7	30	37	2	1	3	3	7	10	1	4	5	—	5	5
3. With cerebral arteriosclerosis,	41	23	64	10	9	19	8	4	12	8	3	11	4	1	5
4. General paralysis,	57	8	65	9	—	9	15	1	16	10	5	15	4	—	4
5. With cerebral syphilis,	—	2	2	—	1	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	1	5	6	—	2	2	1	2	3	—	—	—	—	—	—
9. Alcoholic,	6	2	8	1	—	1	—	2	2	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	7	8	15	6	8	14	—	—	—	—	—	—	1	—	1
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	10	2	12	5	—	5	4	1	5	—	—	—	—	—	—
13. Manic-depressive,	1	13	14	1	—	1	4	4	4	1	2	2	1	1	1
14. Involution melancholia,	2	4	6	1	—	—	1	—	1	—	—	—	—	—	—
15. Dementia praecox,	26	20	46	1	3	4	3	2	5	1	1	2	—	1	1
16. Paranoia and paranoic conditions,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic,	6	—	6	1	—	1	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	8	2	10	6	1	7	2	1	3	—	—	—	—	—	—
22. Not insane,	4	1	5	2	—	2	—	—	1	—	—	—	—	—	—
Total,	178	124	302	44	25	69	37	25	62	21	15	36	9	10	19

TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Psychoses — Concluded.*

PSYCHOSES.	YEARS.														
	1-2.			3-4.			5-10.			10-15.			OVER 15.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
2. Senile,	1	5	6	—	—	—	—	5	5	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	8	2	10	1	3	4	1	—	1	1	—	—	—	—	—
4. General paralysis,	13	2	15	5	3	8	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	—	—	—	—	1	1	—	1	1	—	—	—	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	3	—	3	1	—	1	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	—	4	4	—	2	2	—	—	—	—	—	—	—	—	—
14. Involution melancholia,	1	2	3	—	—	—	—	—	1	1	—	—	—	—	—
15. Dementia precox,	4	3	7	1	4	5	7	2	9	6	3	9	3	1	4
16. Paranoia and paranoic conditions,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
17. Epileptic,	3	—	3	1	—	1	1	—	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Not insane,	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
Total,	35	20	55	10	15	25	12	9	21	7	4	11	3	1	4

TABLE 19. — *Family Care Department, Year ending Sept. 30, 1918.*

	Males.	Females.	Totals.
Remaining Sept. 30, 1917,	—	11	11
Admitted within the year,	—	4	4
Nominal admissions from visit for year,	—	—	—
Whole number of cases within year,	—	15	15
Dismissed within the year,	—	7	7
Returned to institution,	—	5	5
Discharged,	—	1	1
On visit,	—	1	1
Remaining Sept. 30, 1918,	—	8	8
Supported by State,	—	3	3
Private,	—	3	3
Self-supporting,	—	2	2
Number of different persons within year,	—	9	9
Number of different persons admitted,	—	4	4
Number of different persons discharged,	—	6	6
Daily average number,	—	8.11	8.11
State,	—	3.87	3.87
Private,	—	1.49	1.49
Self-supporting,	—	2.75	2.75
Reimbursing,	—	—	—

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OF THE

TRUSTEES

OF THE

DEC 5 1920

BOSTON STATE HOSPITAL

(FORMERLY THE BOSTON LUNATIC HOSPITAL, OPENED IN 1839)

FOR THE YEAR ENDING NOVEMBER 30, 1919



BOSTON

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APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

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1918/19

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BOSTON STATE HOSPITAL.

BOARD OF TRUSTEES.

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IRVING J. WALKER, M.D.,	<i>Surgeon.</i>
MALCOLM STORER, M.D.,	<i>Gynecologist.</i>
CHARLES J. WHITE, M.D.,	<i>Dermatologist.</i>

OFFICERS OF THE HOSPITAL.

JAMES V. MAY, M.D.,	<i>Superintendent.</i>
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HOSPITAL.

ERMY C. NOBLE, M.D.,	<i>Assistant Superintendent.</i>
MARY E. GILL NOBLE, M.D.,	<i>Senior Assistant Physician.</i>
EDMUND M. PEASE, M.D.,	<i>Senior Assistant Physician.</i>
DORA W. FAXON, M.D.,	<i>Senior Assistant Physician.</i>
RODERICK B. DEXTER, M.D.,	<i>Senior Assistant Physician.</i>
FLORENCE H. ABBOT, M.D.,	<i>Senior Assistant Physician.</i>
WILLIAM T. MERRILL, M.D.,	<i>Assistant Physician.</i>
OSCAR J. RAEDER, M.D.,	<i>Pathologist.</i>
ARTHUR W. HICKS, D.M.D.,	<i>Dentist.</i>
ARTHUR E. GILMAN,	<i>Steward.</i>
ADELINE J. LEARY,	<i>Acting Treasurer.</i>

PSYCHOPATHIC DEPARTMENT.

ARTHUR P. NOYES, M.D.,	.	.	.	.	.	<i>Chief Executive Officer.</i>
LAWSON G. LOWREY, M.D.,	.	.	.	.	.	<i>Chief Medical Officer.</i>
CLIFFORD G. ROUNSEFELL, M.D.,	.	.	.	.	.	<i>Executive Officer.</i>
WILLIAM M. DOBSON, M.D.,	.	.	.	.	.	<i>Medical Officer.</i>
JOHN H. TRAVIS, M.D.,	.	.	.	.	.	<i>Medical Officer.</i>
GOODWIN A. JOHNSON, M.D.,	.	.	.	.	.	<i>Assistant Executive Officer.</i>
BENJAMIN L. ELLIOTT, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
MERVYN H. HIRSCHFELD, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
NEWMAN COHEN, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
ARABELLA J. FELDKAMP, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
FRANK J. GALE, M.D.,	.	.	.	.	.	<i>Medical Interne.</i>
PERCY L. DODGE, M.D.,	.	.	.	.	.	<i>Chief Medical Officer, Out- Patient Service.</i>
CHARLES B. SULLIVAN, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer, Out-Patient Service.</i>
WHITMAN K. COFFIN, M.D.,	.	.	.	.	.	<i>Roentgenologist.</i>
ETHEL L. CORNELL, Ph.D.,	.	.	.	.	.	<i>Chief Psychologist.</i>
HELEN L. MYRICK,	.	.	.	.	.	<i>Chief of Social Service.</i>

The Commonwealth of Massachusetts

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to submit herewith their eleventh annual report.

PERSONS UNDER THE CARE OF THE TRUSTEES.

At the beginning of the statistical year there were 1,566 patients in the hospital department, 89 in the psychopathic department, 8 boarded with private families, and 256 on visit or escape, a total of 1,919 persons under the care of the Board. At the close of the year the total number was 2,039, of whom 1,648 were in the hospital department, 79 in the psychopathic department, 8 in private care, and 304 on visit or escape. The total number of patients received in the wards of the psychopathic department during the year was 1,882, while in addition 2,112 persons came to the out-patient department for advice and treatment.

CONSTRUCTION AND IMPROVEMENTS.

The General Court in 1919 appropriated \$290,000 for the following additional buildings:—

Home for 90 nurses,	\$80,000 00
Congregate dining room, West Group,	100,000 00
Congregate dining room, East Group,	110,000 00

Owing to the rapidly increasing cost of construction, it has not been found possible to obtain contracts for the construction of the dining room in the West Group and the nurses' home for the sums that were appropriated. It is therefore necessary to

apply to the next General Court for supplementary appropriations for these purposes, namely, \$24,000 for the nurses' home and \$60,000 for the dining room in the West Group.

The male infirmary building for which an appropriation was made in 1918 is entirely enclosed and will be completed in a few months.

IMPROVEMENTS RECOMMENDED.

For the coming year the trustees have recommended to the Department of Mental Diseases the construction of the following buildings: —

An administration building,	. . . . .	\$150,000 00
Reception building,	. . . . .	350,000 00
Superintendent's house,	. . . . .	25,000 00

These buildings, in addition to those for which appropriations have already been made, will complete the general plant of the hospital, giving to it the various administrative and service units that are needed. A number of minor improvements and repairs amounting in cost to about \$169,000 are described in the superintendent's report and should be made at as early a date as possible.

With this organization the hospital capacity may be extended to accommodate 5,600 patients by the construction of the necessary wards, dining rooms and quarters for officers and attendants. If the increase in patients in the Commonwealth requires additional accommodations, not only may the buildings be provided here as economically as elsewhere, but such an extension will enable patients from the Boston district to be within reach of their friends instead of being isolated in distant institutions as they now are in such large numbers because of the inadequate space in this hospital.

The traversing of the hospital property by an open trench carrying surface drainage from city streets as well as the Canterbury branch of Stony Brook renders unavailable for building purposes a considerable area of valuable land. Unless constantly cleaned, it tends to overflow to the damage of State property. The trustees renew their recommendation that this water should be conveyed through a closed conduit. While this

will involve a large initial expense to the city of Boston, it is an improvement which the Commonwealth has a right to require, and will ultimately be imperative.

ESTIMATES FOR MAINTENANCE.

The following are the estimates of the sum needed for maintenance for the ensuing year, based upon the data furnished by the Commission on Mental Diseases: —

Personal services,	\$348,312 00
Religious instruction,	1,500 00
Travel, transportation and office expenses,	10,313 50
Food,	238,677 74
Clothing and materials,	31,599 42
Furnishings and household supplies,	52,086 50
Medical and general care,	26,564 40
Heat, light and power,	99,808 50
Farm,	14,473 00
Garage, stable and grounds,	11,931 00
Repairs, ordinary,	24,466 50
Repairs and renewals,	2,975 00
<hr/>	
Total,	\$862,707 56

The cost of maintaining the institution for the care of the insane is already very great and is a large part of the annual expenditures of the Commonwealth, yet if the task is to be properly and humanely performed, a still larger appropriation must be made in order to secure an adequate number of competent attendants and nurses. During the war the number of candidates for these positions was necessarily limited, and the administration of the institutions has been perplexing and unsatisfactory. With the return of peace conditions the situation has not improved as rapidly as was expected. The conditions of the labor market both as to the demand for labor and the compensation that is offered make it impossible to persuade competent men and women to undertake the care of the insane at the wages the institutions offer. Experienced attendants are needed, and the wages and living conditions must be made more attractive. This can be done only by a generous and appreciative attitude on the part of the Commonwealth.

THE PSYCHIATRIC INSTITUTE.

The establishment of the Massachusetts State Psychiatric Institute by the Commission on Mental Diseases has relieved the psychopathic department of the functions of instruction and research which were made a part of its duties by the statute under which the department was established. The institute will for the present occupy a certain portion of the building of the department for its offices and laboratories, and will have clinical opportunities in the wards of the department. Dr. E. E. Southard has been appointed director of the institute and has thereupon resigned as director of the psychopathic department. The trustees desire to express their grateful appreciation of the valuable services of Dr. Southard in the organization and development of the psychopathic department, of which he has had charge since its establishment. The office of director has been discontinued and the administration of the department will be cared for by the superintendent assisted by a chief executive officer and a chief medical officer, both in residence at the department.

The administrative and financial details of the year are shown in the accompanying reports of the superintendent and treasurer.

HENRY LEFAVOUR.

KATHERINE G. DEVINE.

HELEN B. HOPKINS.

JOHN A. KIGGEN.

WILLIAM F. WHITTEMORE.

HYMAN B. SWIG.

CHARLES B. FROTHINGHAM.

Nov. 29, 1919.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the Boston State Hospital.

In accordance with the provisions of the statutes, I am submitting for your consideration the eleventh annual report of the superintendent of the hospital for the statistical year ending Sept. 30, 1919, and the fiscal year ending Nov. 30, 1919.

MOVEMENT OF POPULATION OF THE ENTIRE INSTITUTION.

The census, including the psychopathic department, on Sept. 30, 1918, was as follows: in the wards, men, 711, women, 944, total, 1,655; at home on visit, men, 124, women, 121, total, 245; boarding out, women, 8; and out on escape, men, 9, women, 2, total, 11; making a total of 1,919, 844 men and 1,075 women, in the custody of the institution.

Eleven hundred and twenty-one men and 1,028 women, a total of 2,138, were admitted during the year. This included the following: first admissions, men, 881, women, 818, total, 1,699; readmissions, men, 235, women, 204, total, 439; and transfers from other institutions, men, 5, women, 6, total, 11. Sixteen hundred and eighty-nine cases, including 910 men and 779 women, were discharged during the year. Of this number, 107 were discharged as recovered, 270 as improved, 882 as unimproved, and 430 as not insane. Six men and 9 women, a total of 15, were transferred to other institutions. One hundred and seventy-two men and 153 women, a total of 325, died during the year.

The census of the institution on Sept. 30, 1919, was as follows: in the wards, men, 764, women, 963, total, 1,727; at home on visit, men, 105, women, 191, total, 296; on escape, men, 8; boarding out, women, 8; making a total of 2,039, 877 men and 1,162 women, in the custody of the institution.

The total number of cases treated during the year was 4,068.

The average daily population for the year was as follows: men, 732.55; women, 954.86; total, 1,687.41. The average daily number at home on visit was: men, 118.64; women, 150.26; total, 268.9. The average daily number boarding out was 8.08 women. The average daily number out on escape was: men, 10.92; women, 2.39; total, 13.31. The average daily number of committed cases was: men, 692.23; women, 917.56; total, 1,609.79. The average daily number of voluntary cases was: men, 22.96; women, 20.74; total, 43.70. The average daily number of temporary-care cases was: men, 17.36; women, 16.56; total, 33.92. The average daily number of epileptics was: men, 11.84; women, 11.76; total, 23.60. The average daily number under complaint or indictment was: men, 5.22; women, .48; total, 5.70. The average daily number of reimbursing cases was: men, 27.58; women, 98.11; total, 125.69. The average daily number of private cases was: men, 14.8; women, 68.13; total, 82.93.

The recovery rate, based on the number of first admissions, was 6.3 per cent; based on the total number cared for during the year, 2.63 per cent; and based on the average daily population of the institution, 6.34 per cent.

The death rate, based on the number of first admissions, was 19.13 per cent; based on the total number cared for during the year, 7.99 per cent; and based on the average daily population, 19.26 per cent.

Of the first admissions, 740, or 43.56 per cent, were foreign born and 1,266, or 74.51 per cent, were of foreign parentage on one or both sides.

The average age on admission was 37.58; 198, or 11.71 per cent, were sixty years of age or over.

Of the first admissions, 80 men and 93 women, a total of 173, were committed under the provisions of section 30 of chapter 504 of the Acts of 1909; 143 men and 118 women, a total of 261, were admitted as voluntary cases under the provisions of section 45 of chapter 504 of the Acts of 1909; 481 men and 533 women, a total of 1,014, were admitted as temporary care cases under the provisions of chapter 174 of the Acts of 1915; 136 men and 52 women, a total of 188, were admitted under the

provisions of chapter 307 of the Acts of 1910, at the request of the Boston Police Department; 3 men and 1 woman, a total of 4, were admitted for observation under the provisions of section 43 of chapter 504 of the Acts of 1909 and chapter 145 of the Acts of 1919; 6 men and 6 women, a total of 12, were committed pending examination and hearing by the courts, under the provisions of section 34 of chapter 504 of the Acts of 1909; 1 man and 1 woman, a total of 2, were admitted as emergency cases, under the provisions of section 42 of chapter 504 of the Acts of 1909; 28 men and 14 women, a total of 42, held under complaint or indictment, were committed under the provisions of chapter 46 of the General Acts of 1917.

The forms of mental disease shown by all first admissions briefly summarized were as follows: traumatic psychoses, 10, or .59 per cent; senile psychoses, 62, or 3.65 per cent; psychoses with cerebral arteriosclerosis, 88, or 5.18 per cent; general paralysis, 117, or 6.89 per cent; psychoses with cerebral syphilis, 25, or 1.47 per cent; psychoses with Huntington's chorea, 4, or .23 per cent; psychoses with brain tumor, 3, or .18 per cent; psychoses with other brain or nervous diseases, 17, or 1.01 per cent; alcoholic psychoses, 118, or 6.94 per cent; psychosis with pellagra, 1, or .06 per cent; psychoses with other somatic diseases, 40, or 2.36 per cent; manic-depressive psychoses, 115, or 6.77 per cent; involution melancholia, 23, or 1.35 per cent; dementia præcox, 418, or 24.6 per cent; paranoia or paranoic condition, 49, or 2.88 per cent; epileptic psychoses, 40, or 2.36 per cent; psychoneuroses and neuroses, 55, or 3.24 per cent; psychoses with constitutional psychopathic inferiority, 3, or .18 per cent; psychoses with mental deficiency, 13, or .77 per cent; undiagnosed psychoses, 134, or 7.88 per cent; not insane, 327, or 19.24 per cent; no diagnosis, 37, or 2.18 per cent.

Of the 1,699 first admissions, the cause was unascertained or no cause given in 854 cases, or 50.26 per cent. In the 845 cases where a definite cause was assigned, the etiological factors were as follows: alcoholism, 207, or 24.50 per cent; arteriosclerosis, 49, or 5.8 per cent; involutional changes, 11, or 1.30 per cent; traumatism, 22, or 2.60 per cent; senility, 46, or 5.44 per cent; and syphilis, 145, or 17.16 per cent. There was a family history

of mental disease in 206, or 24.38 per cent, and a family history of nervous disease in 32, or 3.79 per cent, of these cases.

The movement of population of the entire institution for the year is shown in detail in the statistical tables on page 94. The psychoses of all first admissions during the year for the entire institution are shown in the statistical tables on page 96.

FINANCIAL STATEMENT.

The appropriation for maintenance of the institution for the fiscal year ending Nov. 30, 1919, was \$686,700. The maintenance expenditures for the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Salaries and wages,	\$279,644 50	\$163.4746	41.7943
Religious instruction,	1,416 00	.8278	.2118
Travel, transportation, etc.,	17,017 45	9.9481	2.5434
Food,	189,572 46	110.8203	28.3326
Clothing and materials,	26,165 21	15.2957	3.9107
Furnishings and household supplies,	48,588 40	28.4038	7.2618
Medical and general care,	22,823 51	13.3421	3.4113
Heat, light and power,	34,984 47	20.4512	5.2286
Farm and stable,	11,973 42	6.9994	1.7895
Grounds,	1,145 90	.6698	.1712
Repairs, ordinary,	19,928 60	11.6498	2.9783
Repairs and renewals,	15,837 64	9.2584	2.3670
Total,	\$669,097 56	\$391.1410	100.0000

The maintenance expenditures for the hospital department for the year are shown on page 34; the expenditures for the psychopathic department are shown on page 79. Based on the average daily population of the institution for the year, 1,710.63, the per capita cost for 1919 was \$391.14 or \$7.522 per week. The per capita cost of the hospital department for the year is shown on page 34, and the per capita cost of the psychopathic department on page 79. It will be noticed that the maintenance cost for the year is considerably less than it was in 1918. This is due to the fact that at that time a year's supply of coal was bought in advance by each of the institutions, thus materially increasing the cost of heat, light and power for that

fiscal period. It is hardly necessary to suggest that for purposes of comparison with other institutions the expenditures of the hospital must be analyzed separately by departments. The cost of maintaining a psychopathic department is out of all proportion to the maintenance costs necessary for the operation of an institution conducted exclusively along ordinary State hospital lines. For the same reason, it is obvious that if the cost of maintaining the Boston State Hospital is to be compared with the other institutions under the jurisdiction of the Commission on Mental Diseases, the cost of operating the psychopathic department must be eliminated.

Attention is called to the fact that the preceding statistical and financial statements relate to the institution as a whole. A report of the operations of the Boston State Hospital by departments will be made separately under the following headings: I. The Hospital; II. The Psychopathic Department.

I. THE HOSPITAL.

MOVEMENT OF POPULATION.

The census of the hospital department on Sept. 30, 1918, was as follows: in the wards, men, 678, women, 888, total, 1,566; at home on visit, men, 106, women, 94, total, 200; boarding out, women, 8; and out on escape, men, 8, women, 2, total, 10; making a total of 1,784, 792 men and 992 women, in the custody of the hospital department.

The movement of population during the year is shown by the following table: —

	Males.	Females.	Totals.
Insane patients on books Oct. 1, 1918,	792	992	1,784
Admissions during year: —			
First admissions,	81	96	177
Readmissions,	34	51	85
Readmissions (from psychopathic department),	138	172	310
Total admissions,	253	319	572
Transfers from other institutions for the insane,	4	5	9
Total received during year,	257	324	581
Total under treatment during year,	1,049	1,316	2,365
Discharged from books during year: —			
As recovered,	15	33	48
As improved,	66	40	106
As unimproved,	16	20	36
As not insane,	3	1	4
Transferred to psychopathic department,	4	—	4
Transferred to other institutions for the insane,	6	9	15
Died,	136	129	265
Total discharged and died during year,	246	232	478
Insane patients on books Sept. 30, 1919,	803	1,084	1,887

The census on Sept. 30, 1919, was as follows: in the wards, men, 719, women, 929, total, 1,648; at home on visit, men, 76, women, 147, total, 223; boarding out, women, 8; and out on escape, men, 8; making a total of 1,887 in the custody of the hospital department.

The average daily population for the year was as follows: men, 688.99; women, 912.13; total, 1,601.12. The average daily number at home on visit was: men, 90.53; women, 115.96; total, 206.49. The average daily number boarding out was 8.08 women. The average daily number out on escape was: men, 10.92; women, 2.39; total, 13.31. The average daily number of committed cases was: men, 674.87; women, 897.87; total, 1,572.74. The average daily number of voluntary cases was: men, 14.12; women, 14.26; total, 28.38. The average daily number of epileptics was: men, 11.60; women, 11.57; total, 23.17. The average daily number under complaint or indictment was: men, 4.11.

The recovery rate, based on the number of first admissions, was 27.12 per cent; based on the total number cared for during the year, 2.03 per cent; and based on the average daily population, 3.00 per cent.

The death rate, based on the total number cared for during the year, was 11.21 per cent; and based on the average daily population, 16.55 per cent. The death rate of the hospital is unusually large when compared with that of other institutions of a similar character, as nearly 30 per cent of the population is of the infirmary type and 10 per cent is actual bed cases. This is due to the fact that the acutely ill, the senile and infirm cases from the city, cannot be readily transported to distant institutions and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions, 91, or 51.41 per cent, were foreign born and 105, or 59.32 per cent, were of foreign parentage on one or both sides.

The average age on admission was 57.33; 72, or 40.7 per cent, were sixty years of age or over.

Of the first admissions, 80 men and 93 women, a total of 173, or 97.74 per cent, were committed under the provisions of sec-

tion 30 of chapter 504 of the Acts of 1909; 2, or 1.13 per cent, both women, were voluntary cases, admitted under the provisions of section 45 of chapter 504 of the Acts of 1909; 1 man and 1 woman, a total of 2, or 1.13 per cent, were emergency cases, admitted under the provisions of section 42 of chapter 504 of the Acts of 1909; no men or women held under complaint or indictment were committed under the provisions of chapter 46 of the General Acts of 1917.

Of the 177 first admissions, the cause was unascertained, or no cause given in 50 cases, or 28.25 per cent. In the 127 cases where a definite cause was assigned, the etiological factors were as follows: alcoholism, 22, or 17.32 per cent; arteriosclerosis, 30, or 23.62 per cent; involutional changes, 3, or 2.36 per cent; traumatism, 5, or 4 per cent; senility, 11, or 8.66 per cent; and syphilis, 16, or 12.60 per cent. There was a family history of mental disease in 26, or 20.47 per cent, and a family history of nervous disease in 10, or 8 per cent, of these cases.

The psychoses represented by the first admissions during the year were as follows:—

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses,	2	—	2			
(a) Traumatic delirium,	1	—	1			
(c) Post-traumatic mental enfeeblement,	1	—	1			
Senile psychoses,	10	26	36			
(a) Simple deterioration,	6	15	21			
(b) Presbyophrenic type,	1	—	1			
(c) Delirious and confused types,	2	3	5			
(d) Depressed and agitated states in addition to deterioration,	—	1	1			
(e) Paranoid types,	1	7	8			
Psychoses with cerebral arteriosclerosis,	35	18	53			
General paralysis,	9	6	15			
Psychoses with cerebral syphilis,	3	1	4			
Psychoses with other brain or nervous diseases,	—	1	1			
Cerebral embolism,	—	1	1			
Alcoholic psychoses,	5	3	8			
(b) Delirium tremens,	1	—	1			
(c) Korsakow's psychosis,	—	1	1			
(d) Acute hallucinosis,	1	1	2			
(e) Chronic hallucinosis,	1	1	2			
(f) Acute paranoid type,	1	—	1			
(g) Chronic paranoid type,	1	—	1			
Psychoses with pellagra,	—	1	1			

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with other somatic diseases,	3	8	11			
(a) Delirium with infectious diseases,	2	2	2			
(b) Post-infectious psychosis,	2	2	2			
(c) Exhaustion delirium,	1	1	2			
(e) Cardiorenal diseases,	1	2	3			
(g) Other diseases or conditions,	1	1	2			
Pernicious anæmia,	1	—	1			
Carcinoma of liver,	—	1	1			
Manic-depressive psychoses,	—	6	6			
(a) Manic type,	—	3	3			
(b) Depressive type,	—	3	3			
Involution melancholia,	1	2	3			
Dementia præcox,	9	14	23			
(a) Paranoid type,	2	8	10			
(b) Katatonic type,	1	2	3			
(c) Hebephrenic type,	3	3	6			
(d) Simple type,	3	1	4			
Paranoia or paranoic condition,	—	6	6			
Psychoneuroses and neuroses,	1	—	1			
(b) Psychasthenic type,	1	—	1			
Psychoses with constitutional psychopathic inferiority,	—	2	2			
Psychoses with mental deficiency,	1	1	2			
Undiagnosed psychoses,	1	—	1			
Not insane,	1	1	2			
(d) Constitutional psychopathic inferiority without psychosis,	1	1	2			
Total,	81	96	177			

All of these were committed cases, with the exception of four, the psychoses of which were as follows:—

Voluntary Cases (Section 45, Chapter 504, Acts of 1909).

	Males.	Females.	Totals.
Psychosis with cerebral arteriosclerosis,	—	1	1
Dementia præcox:—			
(c) Hebephrenic type,	—	1	1
Total,	—	2	2

Emergency Cases (Section 42, Chapter 504, Acts of 1909).

	Males.	Females.	Totals.
Paranoia or paranoic condition,	—	1	1
Not insane:—			
(d) Constitutional psychopathic inferiority without psychosis,	1	—	1
Total,	1	1	2

The psychoses of the cases received by transfer from the psychopathic department were as follows:—

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses, (c) Post-traumatic mental enfeeblement,	2	1	3	2	1	3
Senile psychoses,				3	8	11
(a) Simple deterioration,	2	5	7			
(b) Presbyophrenic type,	—	1	1			
(c) Paranoid types,	1	2	3			
Psychoses with cerebral arteriosclerosis,				6	5	11
General paralysis,				31	5	36
Psychoses with cerebral syphilis,				3	2	5
Psychoses with Huntington's chorea,				—	1	1
Psychoses with other brain or nervous diseases,				3	2	5
Organic brain disease,	2	2	4			
Tabs,	1	—	1			
Alcoholic psychoses,				9	7	16
(c) Korsakow's psychosis,	1	1	2			
(d) Acute hallucinosis,	4	1	5			
(e) Chronic hallucinosis,	2	1	3			
(g) Chronic paranoid types,	2	1	3			
(h) Alcoholic deterioration,	—	3	3			
Psychoses with other somatic diseases,				1	3	4
(a) Delirium with infectious diseases,	—	1	1			
(b) Post-infectious psychosis,	—	1	1			
(d) Delirium of unknown origin,	—	1	1			
(e) Cardiorenal diseases,	1	—	1			
Manic-depressive psychoses,				10	31	41
(a) Manic type,	7	14	21			
(b) Depressive type,	3	12	15			
(d) Mixed type,	—	5	5			
Involution melancholia,				3	6	9
Dementia præcox,				54	74	128
(a) Paranoid type,	25	32	57			
(b) Katatonic type,	7	22	29			
(c) Hebephrenic type,	22	19	41			
(d) Simple type,	—	1	1			
Paranoia or paranoic condition,				2	10	12
Epileptic psychoses,				2	1	3
(a) Deterioration,	2	1	3			
Psychoneuroses and neuroses,				1	—	1
(b) Psychasthenic type,	1	—	1			
Psychoses with mental deficiency,				—	2	2
Undiagnosed psychoses,				7	13	20
Not insane,				1	—	1
(c) Mental deficiency without psychosis,	1	—	1			
No diagnosis,				—	1	1
Total,				138	172	310

The psychoses represented by the cases discharged from the hospital department during the year were as follows: traumatic psychosis, 1, or .52 per cent; senile psychoses, 6, or 3.09 per cent; psychoses with cerebral arteriosclerosis, 6, or 3.09 per cent; general paralysis, 6, or 3.09 per cent; psychoses with cerebral syphilis, 3, or 1.54 per cent; psychoses with other brain or nervous diseases, 2, or 1.03 per cent; alcoholic psychoses, 20, or 10.31 per cent; psychoses due to drugs and other exogenous toxins, 3, or 1.54 per cent; psychoses with other somatic diseases, 8, or 4.12 per cent; manic-depressive psychoses, 50, or 25.77 per cent; involution melancholia, 7, or 3.61 per cent; dementia præcox, 58, or 29.90 per cent; paranoia or paranoid conditions, 5, or 2.58 per cent; epileptic psychosis, 1, or .52 per cent; psychoneuroses and neuroses, 4, or 2.06 per cent; psychoses with constitutional psychopathic inferiority, 4, or 2.06 per cent; psychoses with mental deficiency, 4, or 2.06 per cent; undiagnosed psychoses, 2, or 1.03 per cent; not insane, 4, or 2.06 per cent.

The psychoses represented by deaths occurring in the hospital department during the year were as follows: traumatic psychosis, 1, or .38 per cent; senile psychoses, 39, or 14.72 per cent; psychoses with cerebral arteriosclerosis, 80, or 30.19 per cent; general paralysis, 34, or 12.83 per cent; psychoses with cerebral syphilis, 8, or 3.02 per cent; psychosis with brain tumor, 1, or .39 per cent; psychoses with other brain or nervous diseases, 4, or 1.51 per cent; alcoholic psychoses, 8, or 3.02 per cent; psychosis with pellagra, 1, or .38 per cent; psychoses with other somatic diseases, 6, or 2.27 per cent; manic-depressive psychoses, 16, or 6.04 per cent; involution melancholia, 9, or 3.4 per cent; dementia præcox, 56, or 21.13 per cent; epileptic psychosis, 1, or .38 per cent; psychosis with mental deficiency, 1, or .38 per cent.

The following general statistical information relating to the ward service should be of interest: —

	Males.	Females.	Totals.	Percentage.
Average daily population,	688.99	912.13	1,601.12	100.00
In bed,	77.35	93.15	170.50	10.65
In restraint,	2.08	1.71	3.79	.21
In seclusion,	1.42	5.06	6.48	.38
Eating in dining rooms,	579.82	699.51	1,279.33	79.90
Eating on wards,	109.17	212.62	321.79	20.10
Fed by nurses,	17.05	15.73	32.78	2.05
Idle,	310.51	515.18	825.69	51.57
Employed,	378.48	396.95	775.43	48.43
Parole of grounds,	137.30	67.90	205.20	1.28
Out for exercise,	470.88	418.34	889.22	55.54
Noisy,	49.13	84.68	133.81	8.37
Violent,	3.36	14.56	17.92	1.12
Destructive,	15.93	28.17	44.10	2.75
Soiled or wet,	63.21	89.36	152.57	9.53
Taking medicine,	27.85	30.70	58.55	3.66
Infirm,	225.02	233.46	458.48	28.63

GENERAL HEALTH OF THE HOSPITAL.

The general health of the hospital during the year has been good. The epidemic of influenza, however, continued during the months of December, 1918, and January, February and April of 1919. During these four months the number of cases reported was as follows: employees, 14; patients, 74; total, 88. This brings the number of cases, including those developing during the preceding year, up to a total of 340. One employee and 5 patients died during the four months in question, making the total number of deaths occurring from influenza 28, of which 5 were employees and 23 patients. The vaccine furnished by Dr. Timothy Leary of Tufts Medical School was used throughout the epidemic. In view of the fact that of the 548 cases to which this prophylactic vaccine was administered only 1, or .18 per cent, developed pneumonia, and only 3, or .55 per cent, died, it would seem to be fairly reasonable to assume that

the vaccine therapy was of considerable value, notwithstanding the reports emanating from other sources.

During the month of March there was an epidemic of a very mild form of diarrhœa. The State Department of Health was requested to assist the hospital physicians in determining the cause of this intestinal disturbance. Notwithstanding the fact that an unusually thorough bacteriological investigation was made by Drs. Rosenau and Sisco of the Harvard Medical School, it was impossible to determine accurately the cause of this epidemic. Fortunately, no deaths occurred which could be directly attributed to it.

Several isolated cases occurred in the East Group in which a bacteriological diagnosis of diphtheria was made. They all made a good recovery, however, without the occurrence of any general epidemic.

In September and October of 1919 all of the patients in the East and West groups who were deemed to be desirable cases for such treatment were given an antipneumococcus vaccine under the direction of Dr. Hasseltine of the United States Public Health Service. Vaccination against typhoid fever has been carried on during the year as usual.

There was the usual number of unavoidable accidents and injuries in the wards of the hospital during the year. All of these were thoroughly investigated and reported in detail to the Board of Trustees of the hospital and to the Commission on Mental Diseases.

Attention has already been called to the death rate of the hospital and the total number of deaths is shown on page 118.

EMPLOYEES.

The difficulty of maintaining an adequate force of employees in the various departments of the hospital has continued with little improvement. There were 307 employees in the hospital department on Nov. 30, 1918. During the year 762 were appointed, 713 resigned and 42 were discharged. Ten hundred and sixty-nine persons occupied 351 positions, — a rotation of 3.05. The war has been generally looked upon as accounting largely for the shortage which exists in all institutions. Since the return of the expeditionary forces we have had much less

difficulty in obtaining men. We are still having the same difficulty, however, in obtaining the services of domestics and nurses. Our troubles must be attributed largely, if not entirely, to the rate of wages paid. The cost of living has, of course, very materially increased and the wages paid in the community are high. The increases authorized by the Commission during the year have not been sufficient to enable us to keep a full force of nurses and attendants in the hospital. The average daily number of all employees during the year was 318.06, with 9.38 per cent of vacancies. The average daily number in the ward service was 173.31, a shortage of 15.45 per cent. This reduction in the number of nurses has, of course, affected the standards of care in the wards. It has not been possible to employ as many patients as should have been furnished occupations. More restraint and seclusion has been made necessary than we feel to be desirable under ordinary circumstances. We have been considerably hampered in dealing with the large number of visitors who call at the hospital to see their relatives and friends. It is interesting to note that there were 48,732 visitors at the hospital department during the last year. It is fairly reasonable to assume that the shortage of ward employees has been responsible to a considerable extent for the number of accidents, injuries and escapes which have occurred.

The impossibility of competing with outside conditions has interfered with our filling vacancies in the medical staff. A lack of suitable quarters for physicians has, of course, had something to do with this difficulty. It would seem that the necessity of a material increase in salaries and wages should be readily apparent.

THE MEDICAL SERVICE.

Dr. S. Finley Gordon, an assistant physician, was granted a leave of absence without pay for six months dating from April 20, 1919. He resigned at the expiration of that time to enter into private practice in Philadelphia, Pa. Drs. Roderick B. Dexter and Florence H. Abbot were promoted from assistant physician to senior assistant physician on June 1, 1919. Dr. William T. Merrill was appointed assistant physician on March 17, 1919. There are two vacancies for assistant physicians which it has been impossible to fill.

The following members of the consulting staff resigned during the year, owing to their inability to devote the necessary time required for visiting the hospital: Drs. Robert G. Loring, Harris P. Mosher, John B. Blake and John J. Thomas. We are very much indebted to these consultants for services rendered to the institution without compensation.

The work of the out-patient department of the hospital includes the supervision of patients in family care, those at home on visit, the after care of cases discharged from the custody of the hospital, and medical advice given to numerous persons who visit the hospital for the purpose of consulting members of the staff on matters pertaining to their own mental welfare or that of their family or relatives. The patients who have been allowed to go home on visit, or who have left the hospital temporarily for family care, are visited at frequent intervals by the social service workers of the hospital. Patients who are at home on visit are also required to present themselves at the hospital at regular intervals for observation. Considerable supervision is also given to former patients who have been discharged but who are kept under observation by the social workers and the physicians. Some cases appearing for consultation are accepted as voluntary patients. Others are referred to their family physicians or to the psychopathic department. The following is a report of the movement of population of patients under the supervision of the out-patient department:—

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	Males.	Females.	Totals.
In family care Nov. 30, 1918,	—	8	8
On escape Nov. 30, 1918,	15	3	18
On visit Nov. 30, 1918,	103	99	202
Dismissed to family care during the year,	—	6	6
Dismissed on visit during the year,	403	472	875
Escaped during the year,	31	2	33
Admitted from family care,	—	3	3
Admitted from visit,	345	333	678
Admitted from escape,	31	1	32
Admitted from family care and discharged,	—	2	2
Admitted from visit and discharged,	77	84	161
Admitted from escape and discharged,	10	3	13
In family care Nov. 30, 1919,	—	9	9
On visit Nov. 30, 1919,	84	154	238
On escape Nov. 30, 1919,	5	1	6

The following is a summary of the social service work done during the year under the direction of Miss Marie L. Donohoe:—

	Males.	Females.	Totals.
Total number of cases under social service care:—			
(a) New cases,	172	263	435
(b) Reviewed and continued cases,	59	100	159
(c) Cases closed during the year,	123	195	318
(d) Total number of cases dealt with during the year,	231	363	594
(e) Cases under care at end of year,	108	168	276
Sources of new cases:—			
(a) Referred by physicians,	66	174	240
(b) Referred by other agencies,	45	10	55
(c) Referred automatically by visit,	60	72	132
(d) Referred by patient's own initiative,	—	2	2
(e) Referred by relatives and friends,	1	5	6
Total,	172	263	435
Purposes for which all new cases were referred:—			
(a) Medical history,	43	86	129
(b) Social investigation,	31	29	60
(c) Investigation of home conditions,	5	38	43
(d) Special supervision at home on visit,	—	6	6
(e) General supervision at home on visit,	60	69	129
(f) To find employment,	—	—	—
(g) Special assistance to family,	20	14	34
(h) To place in family care,	1	3	4
(i) Miscellaneous:—			
To locate relatives,	7	4	11
To care for property,	—	8	8
Psychological examinations,	—	5	5
To procure teacher for blind patient,	—	1	1
To procure interpreter,	1	1	2
To help locate and return from escape,	4	—	4
Total,	172	263	435

	Males.	Females.	Totals.
Medical diagnosis in all new cases: —			
1. Traumatic psychoses,	2	—	2
2. Senile psychoses,	9	19	28
3. Psychoses with cerebral arteriosclerosis,	11	16	27
4. General paralysis,	13	7	20
5. Psychoses with cerebral syphilis,	2	4	6
6. Psychoses with Huntington's chorea,	—	3	3
8. Psychoses with other brain or nervous diseases,	—	3	3
9. Alcoholic psychoses,	23	15	38
10. Psychoses due to drugs and other exogenous toxins,	2	2	4
11. Psychoses with pellagra,	—	1	1
12. Psychoses with other somatic diseases,	3	16	19
13. Manic-depressive psychoses,	22	53	75
14. Involution melancholia,	1	12	13
15. Dementia præcox,	64	94	148
16. Paranoia or paranoic conditions,	3	11	14
17. Epileptic psychoses,	2	2	4
18. Psychoneuroses and neuroses,	3	2	5
19. Psychoses with constitutional psychopathic inferiority,	1	1	2
20. Psychoses with mental deficiency,	6	4	10
21. Undiagnosed psychoses,	4	3	7
22. Not insane,	1	5	6
Total,	172	263	435
Social problems in all new cases: —			
(a) Disease: —			
Mental,	55	64	119
Physical,	5	12	17
(b) Illiteracy,	3	7	10
(c) Family dissension,	6	40	46
(d) Estrangement from family, or no relatives,	10	22	32
(e) Bad environment,	6	21	27
(f) Alcoholism,	7	4	11
(g) Sex offence,	1	9	10
(h) Military financial problems,	35	1	36
(i) Poverty,	9	11	20
(j) No social problem,	35	72	107
Total,	172	263	435
Service rendered in new cases: —			
(a) Medical history,	40	86	126
(b) Social investigation,	38	29	67
(c) Investigation of home conditions,	3	42	45
(d) Special assistance to family,	16	14	30
(e) Special supervision of patients on visit,	2	6	8
(f) General supervision of patients on visit,	48	56	104
(g) Aid in securing employment,	2	2	4
(h) Arrangements to place in family care,	1	3	4
(i) No service rendered,	9	5	14
(j) Miscellaneous: —			
Relatives located,	7	6	13
Property cared for,	—	8	8
Psychological examinations,	1	4	5
Teacher for blind patient procured,	—	1	1
Location from escape,	4	—	4
Interpreter procured,	1	1	2
Total,	172	263	435
All services rendered in all cases: —			
(a) Medical history,	47	111	158
(b) Social investigation,	44	52	96
(c) Home investigation,	4	69	73
(d) Special assistance to family,	18	26	44
(e) Special supervision of patient on visit,	10	38	48
(f) General supervision of patient on visit,	115	151	166
(g) Aid in securing employment,	3	10	13
(h) Arrangements to place in family care,	1	8	9
(i) Advice,	9	4	13
(j) No service rendered,	13	5	18
(k) Miscellaneous: —			
Property cared for,	—	15	15
Arrangements for return,	5	5	10
Location from escape,	10	3	13
Relatives located,	13	19	32
Legal services in military cases,	33	2	35
Psychological examinations,	1	20	21
Interpreter procured,	1	1	2
Teacher of blind procured,	—	1	1

The work of the pathological laboratory has been carried on during the year by Dr. Oscar J. Raeder. The routine work of the laboratory may be summarized as follows:—

Autopsies,	114
Blood examinations:—	
Complete,	4
Cell counts,	58
Widals,	6
Cultures,	3
Cerebrospinal fluid examinations:—	
Gold sol, albumin, globulin, cells,	71
Wassermann reactions:—	
Blood serum,	373
Cerebrospinal fluid,	63
Blood serum (post mortem),	74
Cerebrospinal fluid (post mortem),	81
Microscopical sections:—	
Number of cases,	48
Total number of slides,	439
Microscopic examinations, bacteria, miscellaneous,	269
Surgical specimen,	1
Throat cultures,	121
Vaccines, autogenous,	3
Vaccines, influenza (cubic centimeters),	2,500
Gross specimen fat stains,	2
Kaiserling preparations,	4
Gross brain sections photographed,	2
Sputum analyses,	89
Urinalyses,	560
Fecal analysis,	1
Influenza treatments,	14
Influenza vaccinations,	813
Syphilotherapy, total number of treatments,	2,545
Psychopathic department:—	
Arsphenamine, intravenous,	1,750
Intrathecal,	21
Intraventricular,	14
Mercury, intramuscular,	111
Hospital:—	
Arsphenamine, intravenous,	563
Intrathecal,	1
Mercury, intramuscular,	85

The number of deaths for the hospital during the year was 265, of which 114 came to autopsy, making an autopsy percentage of 43.01.

The following table shows the psychoses represented in cases coming to autopsy: —

Neurosyphilis,	21
Paresis,	16
Cerebrospinal type,	4
Tabetic,	1
Hypophrenia,	1
Alcoholic psychoses,	4
Cerebral tumor,	2
Somatopsychoses,	1
Arteriosclerotic psychoses,	37
Senile psychoses,	17
Psychoses with Huntington's chorea,	1
Dementia præcox,	15
Manic-depressive psychoses,	3
Involution melancholia,	4
Paranoia or paranoic condition,	2
Undiagnosed,	6
Total,	114

In the following table the causes of death are shown according to organs or tracts affected: —

Central nervous system,	19
Pulmonary,	42
Cardiac,	11
Nephritic,	4
Vascular,	9
Cardio-renal-vascular,	3
Gastrointestinal,	12
Genitourinary,	6
Miscellaneous: —	
Carcinoma,	3
Sarcoma,	1
Decubitus septicæmia,	1
Pernicious anæmia,	1
Erysipelas,	1
Moist gangrene (of perineum),	1
Total,	114

The surgical work of the hospital has been largely in the charge of the attending surgeon, Dr. Irving J. Walker of Boston, who visits the hospital regularly and has performed numerous operations. The following is a summary of the more important

surgical work of the year, including cases sent to the City Hospital for operation at that place:—

Amputations:—

Left breast,	1
Left foot,	1
Right leg,	2
Appendectomy,	1
Complete hysterectomy,	2
Excision, sarcoma from labia majora,	1
Fractured shoulder,	1
Incision, cervical glands,	1
Infected hand,	1
Inguinal herniotomy,	3
Intestinal obstruction,	1
Ischiorectal fistula,	1
Laparotomy for distended bladder,	1
Left nephrectomy,	1
Ludwig's angina abscess opened and four teeth extracted,	1
Periostitis, right forearm,	1
Removal of adenoids,	1
Removal of foreign body from stomach,	1
Removal of left ovarian cyst,	1
Removal of necrosed bone from foot,	1
Salpingitis,	1

The dental work of the hospital has increased to such an extent that it was deemed desirable by the Board of Trustees to make arrangements for the services of a resident dentist. Dr. Arthur W. Hicks was appointed to fill this position on November 1. The entire time of Dr. Hicks or his associate, Dr. Oswald F. Banks, is devoted to the care of the patients in the East and West groups. The dental work for the year may be summarized as follows:—

Fillings,	175
Extractions,	806
Examinations,	14
Treatments,	132
Cleanings,	48
Restorations,	4
Prophylaxis,	35
Patients treated,	255
Plates,	7
Miscellaneous,	10

In addition to the above work by the dentist, the dentist's assistant examined the teeth of 1,183 patients and scaled and cleaned teeth for 406.

The hydrotherapeutic work of the hospital has been carried on as usual in the East and West groups under the direction of Dr. Rebekah B. Wright. Systematic instruction has been given to the members of the nurses' training school in this work. A manual of hydrotherapy for the use of members of the staff will be issued shortly.

The vacancy created by the resignation of Miss Jane Robertson, R.N., superintendent of nurses, who retired from the service on July 17, 1918, has been filled by the appointment Oct. 1, 1919, of Miss Mary Alice McMahan, R.N., who was superintendent of nurses at the Boston City Hospital. Miss McMahan is a graduate of the City Hospital training school and has been connected with that institution for many years. Miss Esther A. Owen, R.N., was appointed assistant superintendent of nurses on Oct. 1, 1919, to succeed Miss Alice I. Whitley, R.N., who left the service on Aug. 31, 1918, on account of ill health. The work of the training school for nurses has been carried on actively by Miss McMahan since her appointment. Arrangements have been made to augment the instruction given to the classes so that it will exceed the minimum requirements of the Commission on Mental Diseases. The affiliation of our school with that of the Boston City Hospital has enabled us to give our pupils some very valuable experience in general medicine and surgery. The graduating exercises of the training school for nurses were held on Friday, Aug. 1, 1919, at 8 P.M. The address of the evening was delivered by Mr. Kiggen on behalf of the trustees. The following nurses completed the course prescribed and received their diplomas on that occasion: Beatrice Mary Carney, Nellie Theresa Coughlin, Dorothy Theresa Devine, Clara Wilson Furlong, Frieda Irene Kelley, Christine Jeanette MacPherson, Pearl Margaret MacPherson, Hazel Granite MacKay, Grace Elizabeth MacKenzie, Nora Frances O'Brien, Elizabeth Lillian Richmond, Anna Jeanette Robertson and Gertrude Alice Wilson. The junior class for 1919-20 consists of 18, the intermediate class of 21, and the senior class of 13. Seventeen nurses are now receiving the instruction and ex-

perience prescribed for the intermediate year at the Boston City Hospital. At the present time 14 graduates of the training school are employed in the wards of the hospital.

Staff meetings have been conducted as usual during the year, alternating between the East and West groups. Meetings have been held regularly at the pathological laboratory, where autopsy reports are presented to the staff and demonstrations of gross specimens made by the pathologist.

OCCUPATIONS AND INDUSTRIES.

A plan for more generally extending the occupational work in the wards of the hospital has been instituted, and Miss Alice G. Hunter, R.N., was appointed occupational therapist on Oct. 20, 1919. Much interest has been shown by the patients, and it is hoped that this department can be developed materially during the coming year. Patients who for various reasons are unable to do industrial work in the shops are encouraged to interest themselves in activities of some sort in the wards. It is hoped that classes in purely re-educational work can be organized later.

Industrial work in the East Group consists of basket making, the manufacture of rugs, weaving, lace making, embroidery, knitting, crocheting, sewing, etc. About one hundred patients are employed in the industrial room of the East Group daily. The estimated value of the articles made during the year was \$13,977.61. The work of the industrial room in the West Group is done entirely by men. This includes shoe repairing, the manufacture of toweling, shirting, overalls, men's stockings, repairs to rubber materials, mattress making, mattress renovating, the manufacture of various kinds of brushes, brooms, coat hangers, hats and various other articles. The value of articles produced during the year is estimated at \$12,183.36. In addition to the work of the industrial rooms, as mentioned above, the value of articles produced during the year in the wards was \$1,465.11, making a total valuation of \$27,626.08 for articles produced in the occupational and industrial departments of the hospital.

AGRICULTURAL ACTIVITIES OF THE YEAR.

Mr. Louis S. White, head farmer of the hospital, who has been connected with the institution since 1890, retired on June 30, 1919, and was succeeded by Mr. J. Dana Tilton on July 6, 1919. Mr. Tilton was superintendent of an estate in Wellesley and was an assistant farmer at the Lyman School for Boys for several years.

The year has been a disastrous one from an agricultural point of view, owing to the unusual amount of rain and various other complications. There was a total of 154.69 acres under cultivation. This consisted of 32 acres devoted to field crops and 29.5 acres to gardening, in addition to which there were 88.19 acres of meadow land and 5 acres of orchards and small fruits. The estimated value of farm and garden products during the year was \$19,396.41.

I wish to call the attention of your Board to the necessity of acquiring more farm land at the earliest possible moment. The hospital site, as you know, consists of only 233 acres, all of which is needed for building sites and gardening, not to mention the room required for the recreation of patients. The natural development of the hospital will not leave any space available for farming, nor is it possible to acquire any more land in this vicinity at a price which would justify its use for such purposes. A study of the agricultural needs of the various hospitals made recently by an expert representing the Commission on Mental Diseases shows that an institution of the size of the Boston State Hospital should cultivate approximately 700 acres of land. I would suggest that arrangements be made to purchase several hundred acres of farm land within ready reach of the hospital. We should maintain a farm colony and do intensive agricultural work on a larger scale. This would materially reduce our per capita cost of maintenance and supply the hospital with fresh vegetables and other garden products badly needed. It would also make it possible for us to establish a dairy and raise poultry. The advisability of maintaining a dairy I think is very clearly indicated by the fact that we are now buying 768 quarts of milk per day at a cost of 13.7 cents per quart. The cost of milk per year at this rate is approximately \$38,660. We are

also very much handicapped by not having any hennery. The cost of eggs has increased to such an extent as to make this a very important factor in the maintenance of the hospital. It is impossible to carry on activities of this kind on a hospital site so restricted in size and located as ours is in a large city.

FINANCIAL STATEMENT.

The following appropriations were made for new construction at the last session of the Legislature (chapter 211 of the Special Acts of 1919): for building, furnishing and equipping a home to accommodate 90 nurses, a sum not exceeding \$80,000; for building, furnishing and equipping a congregate dining room for the West Group, a sum not exceeding \$100,000; for building, furnishing and equipping a congregate dining room for the East Group, a sum not exceeding \$110,000. Under the provisions of law these amounts were to be expended under the direction of the Commission on Mental Diseases. A contract has already been awarded for the erection of the kitchen and dining-room building for the East Group and the work is well under way. Unfortunately, all the bids received for the construction of the kitchen and dining-room building in the West Group and the nurses' home in the East Group exceeded the amounts rendered available by the Legislature, and it will be necessary to supplement the appropriations already made before contracts can be awarded for these buildings. It is exceedingly unfortunate that this construction could not be undertaken this summer. The architect estimates that we will require an additional appropriation of at least \$24,000 for the nurses' home and \$60,000 for the kitchen and dining-room building at the West Group. It is to be hoped that these needs will be provided for at the next session of the Legislature.

The maintenance expenditures of the hospital department for the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Salaries and wages,	\$200,784 14	\$123.5534	38.0323
Religious instruction,	1,416 00	.8713	.2682
Travel, transportation and office expenses,	12,598 03	7.7528	2.3864
Food,	158,369 31	97.4532	29.9981
Clothing and materials,	24,854 78	15.2945	4.7080
Furnishings and household supplies,	42,990 96	26.4546	8.1433
Medical and general care,	18,689 75	11.5008	3.5402
Heat, light and power,	26,242 45	16.1484	4.9708
Farm and stable,	11,973 42	7.3679	2.2680
Grounds,	865 90	.5328	.1640
Repairs, ordinary,	13,755 22	8.4643	2.6055
Repairs and renewals,	15,390 15	9.4698	2.9152
Totals,	\$527,930 91	\$324.8646	100.0000

Based on the average daily population of the hospital department (1,625.08), the per capita cost for the year was \$324.86 or \$6.247 per week. The per capita cost for the year 1918 was \$412.25 or \$7.91 per week. It should be borne in mind, however, that during the year 1918 an amount of coal sufficient to last the institution throughout the winter was purchased in advance. Deducting the extraordinary expenditures for fuel, the normal per capita cost for 1918 would have been \$353.80 or \$6.80 per week. It is hardly necessary to say that the increasing maintenance cost is due to the expenditures made necessary for salaries and wages and the large increase in the cost of supplies generally. We have, probably, a larger infirmary population than any other hospital, and a greater number of patients cared for in bed. This naturally requires more nursing and more expensive care.

GENERAL OPERATIONS FOR THE YEAR.

A central location for fire apparatus at the West Group has been provided for in the building formerly used as a power house and now utilized as a garage. This renders it possible to keep all the fire apparatus for that group in one place, and

systematic drills are being held at frequent intervals, the alarm being sounded by the fire whistle recently installed at the East Group power house.

The corridors between the chapel and administration building in the East Group and the chapel and Building A have been repainted and are much improved in appearance.

A staff dining room has been established in the part of the administration building in the East Group which was the original Austin farmhouse. This made it possible to do away with the rather objectionable dining room adjoining the telephone office.

The retaining wall between the power house and storehouse in the East Group has been completed and a cement floor installed between these buildings, furnishing storage capacity for over 2,000 tons of coal. This site immediately adjoins the boiler room, so that the coal can be conveniently reached.

Steam pipes have been installed in the old garage in the East Group, providing heat for this building for the first time.

Very much needed lavatories have been installed in the F building in the East Group.

The upper floor of the C building in the West Group, which was remodeled during the preceding year, was reoccupied on Jan. 4, 1919, adding materially to the present capacity of the hospital.

Buildings A and C in the East Group were repainted during the year.

It was necessary to reinsulate the south branch of the steam main connecting the East and West groups during the early part of the winter. The conduit also had to be repaired. The total cost of these changes was \$10,588.45.

Efforts were made to induce the authorities of the city of Boston to authorize contractors to dump ashes in the pond in the East Group. It was thought that in this way the pond might be filled up without any cost to the hospital. No such arrangements can be made, however, during the continuation of the present contract.

The continuous bathtubs which were removed from Ward 1 of the East D building have been replaced and the bathroom is again in use.

Considerable grading has been done in the vicinity of A building in the West Group, and the grounds are much improved in appearance as a result.

Reference has already been made to the large number of visitors at the hospital, there having been 48,732 during the preceding year. It has always been customary for these visitors to go directly to the various wards, where they were admitted, without any official authorization, by the nurse in charge. This naturally resulted in considerable confusion and made it difficult to keep records showing what patients were visited. It also made it possible for persons to obtain access to the wards who had no legitimate business there. At the present time cards are furnished to relatives and friends calling at frequent intervals, authorizing them to visit the wards on Wednesday and Sunday afternoons. Special visiting cards are issued on request for other days of the week. Visitors are of course admitted in case of dangerous illness at any time during the day or night. Complete records are kept of all visits made.

Work was commenced during the summer on a permanent road connecting the East and West groups, and that part of it extending from the A building in the West Group to the bridge crossing the Canterbury Branch of Stony Brook was practically completed at the end of the fiscal year.

A working party was engaged during the greater part of the summer in the work of removing the hill at the corner of Morton and Canterbury streets. The material thus obtained will be used in the road building already referred to.

Street signs were installed during the summer at the corner of Blue Hill Avenue and Paxton Street, at the hospital entrance on Harvard Street, on Harvard Street in front of Building C of the East Group, at the hospital entrance near the barn on Canterbury Street, on the corner of Canterbury and Morton streets, on the corner of Harvard and Morton streets, at the main entrance to the West Group on Walk Hill Street, at the Walk Hill Street entrance opposite the Mount Hope Cemetery and at the corner of Walk Hill Street and Blue Hill Avenue. These signs are attractive in appearance and will be a great help to visitors and others in locating the various departments of the institution.

The grading of the grounds around the nurses' home in the West Group was completed during the summer.

The front of the old storehouse in the rear of the barn in the East Group has been removed and the building converted into a wagon shed. This gives us for the first time a place for storage of wagons and farm implements which have heretofore stood out in the rain.

The laundry system of the hospital has been generally rearranged and provision made for sending lists of clothing with each laundry bag leaving the ward. These lists are checked up on arriving at the laundry and again when the clothing is returned. This enables us to determine responsibility for articles lost and is expected to result in a considerable economy.

The work of resetting the window guards in G building in the West Group has been completed. These guards were not put on properly in the first place by the contractor, and several patients at various times have succeeded in making their escape from the building.

It has been necessary to install a new ceiling in the lower floor of Building G in the East Group.

I regret to report that Mr. Fred L. Brown, treasurer of the hospital, died on Oct. 21, 1919, after a protracted illness. He has been associated with the hospital as treasurer since Aug. 19, 1912, and rendered most excellent services in that capacity.

I wish to call attention again to the desirability of acquiring the 150,000 square feet of land belonging to the Forest Hills Cemetery and located south of Canterbury Street, adjoining the West Group. This is the only part of the site bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east and Walk Hill Street on the west that has not been purchased by the State. The buildings on this land could be used to very good advantage, and the barns and other objectionable structures adjoining the administration building in the East Group could be removed.

The city cleaned out the channel of the Canterbury Branch of Stony Brook during the year. It is already overgrown by weeds again and will soon be obstructed as badly as at any time heretofore. Too much emphasis cannot be laid upon the necessity of enclosing this brook in a conduit. The conduit al-

ready built by the city extends up to the point where the brook enters the hospital property on Harvard Street. It runs through the grounds for a distance of approximately 4,500 feet. The brook not infrequently overflows its banks and from 30 to 40 acres of hospital land are covered with water at times. It occasionally gets into the steam conduits and has flooded the pump room of the power house to a depth of a foot and a half. Such an overflow may at any time render it impossible to provide heat for the West Group, which, with the completion of the new building, will have a capacity of over 1,500 beds. This condition of affairs should be remedied. The present city conduit should be extended for a distance of at least 2,200 feet. This would reclaim from 30 to 40 acres of land which would be exceedingly valuable for building purposes and is worth approximately \$260,000. In July, 1908, the so-called "Approving Board," consisting of the Commissioner of Health of Massachusetts, the Commissioner of Health of Boston and the Commissioner of Public Works of Boston, agreed upon a plan for the construction of an open channel from the termination of the conduit at Harvard Street down to the end of the Canterbury Branch. This work was begun in August, 1908, and eventually finished in 1913, at a cost of approximately \$91,500. The plan as approved was looked upon as a temporary arrangement at the time and was intended to continue until a permanent conduit was deemed necessary. If this land is to be used, as it should be, for building purposes within the next few years, some further action should be taken soon regarding this matter.

PROPOSED DEVELOPMENT OF THE HOSPITAL.

Further consideration should be given at this time to the necessity of providing additional accommodations for the insane of the city of Boston. When the Boston Insane Hospital became a State institution in 1908, it had a capacity of 764 beds. Its development has been continued systematically during the past eleven years. The new building in the West Group rapidly nearing completion will bring the total capacity up to 2,092. This does not provide sufficient facilities for the admissions from the city of Boston. If the hospital were doubled in size it would not have sufficient room for the Boston residents now in

State hospitals. During the six years ending Jan. 31, 1918, exclusive of the criminal insane, 6,227 residents of the city of Boston were committed to State hospitals for the insane, as shown by the annual reports of the Registration Department. This does not take into account the Boston residents committed outside of the metropolitan district. Of the admissions from the city of Boston, 3,826, or 61.45 per cent, were committed to the Boston State Hospital and 2,401, or 38.55 per cent, were sent to other institutions, as shown by the following table: —

	Boston State Hospital.	Other State Hospitals.	Totals.
1913,	660	521	1,181
1914,	684	421	1,105
1915,	641	349	990
1916,	641	402	1,043
1917,	583	407	990
1918,	617	301	918
Total,	3,826	2,401	6,227
Percentage,	61.45	38.55	100.00
Average per year,	637.66	400.16	1,037.80

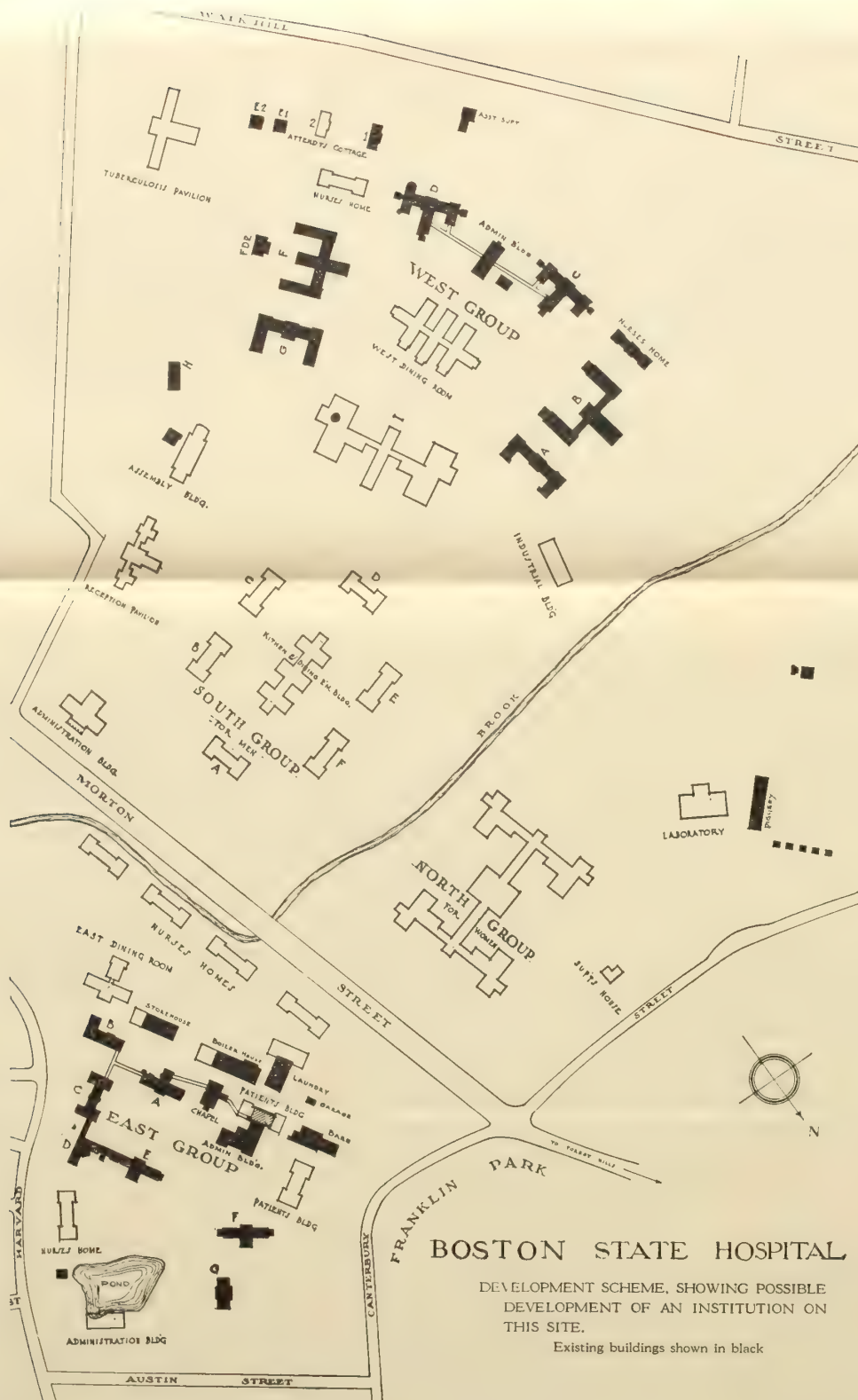
During the years mentioned, 5 residents of Boston were committed to the Northampton State Hospital, 103 to Grafton, 148 to Foxborough, 259 to Danvers, 384 to Taunton, 356 to Medfield, 480 to Westborough and 666 to Worcester. Owing to the lack of accommodations, it was necessary during this period of time to transfer 497 cases from the Boston State Hospital to other institutions. Including these transfers, 2,898, or 46.5 per cent of the residents of Boston committed from the city alone, were sent to hospitals outside of the city, owing to lack of accommodations in our own institution. A census of Boston residents in the various State hospitals on Jan. 1, 1919, showed 64 in Taunton, 76 in Danvers, 247 in Worcester, 222 in Westborough, 563 in Grafton, 748 in Medfield, 116 in Gardner, 166 at Tewksbury and 119 at Foxborough, — a total of 2,321. The census of the Boston State Hospital on this date was 1,633. Of the 3,954 residents of Boston in State hospitals on Jan. 1, 1919, 58.7 per cent were in other institutions, owing to lack of room at Boston.

Building operations will cost no more here than at hospitals far removed from the city, where patients cannot be conveniently visited by relatives or friends. The site now occupied by the Boston State Hospital lends itself readily to the development of a larger institution which would be adequate to the needs of the Boston district for many years. This has been made the subject of considerable study, and the possible development of the institution to its maximum capacity is graphically shown in the illustration facing this page. This scheme provides for the erection of two additional groups of buildings, each with a capacity of 1,200 patients; an additional building for patients in the West Group; two ward buildings in the East Group; an industrial building; a tuberculosis pavilion; a reception hospital; an administration building, etc. This scheme shows that the institution can be increased to a capacity of over 5,000.

As this space must be provided either here or at some other institution, there would seem to be little room for discussion as to where the necessary buildings should be erected. The development of an institution to a capacity of 5,000 patients is not an untried experiment. New York City now has an institution larger than the one proposed. The successful conduct of a large hospital is merely a matter of organization and administration, and a large hospital can be operated with exactly the same degree of efficiency as one with only 1,000 or 2,000 patients. The fact that some of our land has been used for farming operations should not be given serious consideration as an objection to this plan. Land worth from 15 to 20 cents per square foot should not be used for agricultural purposes when it is so badly needed for buildings. Land for extensive farming operations, as has already been shown, should be provided for at another place. If the Boston insane are not to be sent indefinitely to institutions far removed from the city, steps should be taken by the Legislature to develop this hospital as rapidly as consistent with the availability of funds for that purpose.

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NEEDS OF THE HOSPITAL FOR THE COMING YEAR.

As the construction deemed necessary for the hospital for the ensuing year is to be determined by the Commission on Mental Diseases, the following items were submitted some time since for consideration: —

Administration building and staff quarters,	\$150,000 00
Superintendent's house,	25,000 00
Reception building,	350,000 00
Stokers for eight boilers,	20,000 00
Filling in pond,	7,500 00
Fencing,	10,000 00
Repairs to chapel, East Group,	1,200 00
Repairing roofs and gutters,	4,000 00
New watch clock system, West Group,	2,600 00
Automatic CO ₂ and draft recorders,	3,500 00
Paint shop,	7,500 00
Addition to garage,	2,500 00
New laundry machinery,	6,000 00
Addition to laundry building,	5,000 00
Total,	<hr/> \$594,800 00

Administration Building and Staff Quarters. — The offices of the hospital are now located in a very old building purchased by the city of Boston nearly fifty years ago to be used as an almshouse. It is a two and one-half story building with basement, constructed of wood throughout, and contains numerous exposed electric wires, with several wooden stairways running from the basement to the attic. This building is located within fifty yards of a large wooden barn containing hay and is surrounded by other non-fireproof structures. Its presence in this location is a serious menace to the East Group. The building houses over 50 employees, 30 of whom are living in the attic. This site is badly needed for building space for additional accommodations for patients in the East Group. The offices are now located at a point which is very inaccessible for visitors. It is very inconvenient for relatives and friends of patients to come from the West Group on Walk Hill Street to the present offices. The administration building should be in the center of the institution, on the corner of Harvard and Morton streets.

With a capacity of over two thousand beds the hospital has certainly reached a stage in its development where an administration building should be erected as soon as possible. This matter should not be delayed until the institution has been increased to three thousand beds or more. We do not propose to demolish the old wooden building now used for office purposes. This structure can be removed to some other location where it will not be a dangerous fire risk, and used as a cottage for farm employees.

In erecting an administration building we propose to provide some additional accommodations for the staff in the same building. Nothing has ever been built at the hospital for the staff. Quarters can be obtained at a much smaller cost as a part of an administration building than in a separate structure.

Superintendent's House. — No superintendent's residence has been built at the hospital. The only house ever used for that purpose was the remodeled Pierce farmhouse, acquired by the city in 1893. This building now furnishes accommodations for the assistant superintendent, the steward of the hospital and one of the senior assistant physicians in the West Group. The arrangement of the house is not such as to render it suitable for a superintendent's residence. With the approval of the Commission, the trustees have rented a house for the superintendent's use at a point midway between the hospital and the psychopathic department. The lease on this house will expire by the time a building can be erected on the hospital premises. The annual outlay involved in this rental, including heat, light, etc., represents the interest on a considerable investment. The cost may be increased at the expiration of the present lease.

Reception Building. — Female patients are now received in Building G of the East Group. This space is needed for use as hospital wards, there being no other infirmary accommodations in the group. Male patients are admitted to Building G in the West Group, as there is no other place suitable for the purpose. This building was designed for the use of destructive and violent male patients. They certainly should not be in the same building with our acute cases. An institution of the size of the Boston State Hospital should possess reception hospital facilities. A building for this purpose should be in the central part

of the hospital grounds readily accessible from the Blue Hill Avenue car line. We would suggest locating it on Harvard Street immediately adjoining the proposed administration building. It should accommodate at least 150 patients and should be completed at the earliest possible moment. Attention is called to the fact that all obviously committable cases from the city of Boston are now sent directly to the hospital instead of to the psychopathic department. The proposed reception building should contain a hydrotherapy outfit, the West Group, with over 1,500 beds, now having no facilities for such treatment.

Stokers for Eight Boilers. — The development of the institution of course means additional boilers. With the buildings for which appropriations are now available and those in process of erection, we must add to our boiler house equipment. Instead of buying two boilers I would suggest that we accomplish the same results in increasing the efficiency of those now in operation by installing mechanical stokers. The cost would be the same. This would do away with the necessity of additional firemen and obviate the expense of an addition to the building.

Filling in the Pond. — It is hardly necessary to call attention to the need of filling in the pond located directly in front of the building now used as a reception ward in the East Group. We have had one suicide at this place during the last year. The pond is at least 12 feet deep in some places, and is a constant invitation to our patients to commit suicide. It serves no good purpose whatever and should be removed. The trustees have been anxious to have this done for many years.

Fencing. — The hospital has on its present site 233 acres of land unprotected by suitable fencing at any place. As a result of this, the grounds are overrun by small boys from the neighborhood. We cannot police the premises, and many of the vegetables which we are attempting to raise in our gardens are stolen. We have suffered large losses in this way. We are also unable to prevent strangers from approaching our buildings and annoying the patients, as they do very frequently. A schoolhouse has just been finished at a point immediately across the street from the building containing our most destructive, noisy and violent women. We cannot keep the school children out

of our property. We wish to erect an angle iron fence at least 5 feet high. We are, of course, aware of the fact that the entire hospital property cannot be all fenced in at once owing to the expense involved. The fence proposed, as far as can be determined now, will cost from \$2.75 to \$3 a foot. We would suggest appropriating \$5,000 or \$10,000 each year for this purpose.

Repairs to Chapel, East Group. — The chapel at the East Group is an old stucco building which has been neglected for some years and is badly in need of repairs.

Repairs to Roofs and Gutters. — We have many buildings with old-fashioned shingle roofs. These have been neglected and are leaking in numerous places, rendering extensive repairs very urgent. The work cannot be completed for the amount requested.

New Watch Clock System, West Group. — We now have three watch clock recorders in the West Group, with a new building going up. None of the present recorders have sufficient capacity to take care of this new building. An overhead cable has been used in some places. The wiring in two of the buildings is very old and was too light for the work originally. It should be replaced. The proper thing to do under the circumstances is to install one central recorder of sufficient capacity to take care of the entire West Group, locating all wires under ground. This will cost about \$2,600. It should be done now to avoid the necessity of putting in a new recording system in the new building.

Automatic CO₂ and Draft Recorders. — These were recommended by the Tenney Engineering Company last year. Our budget did not, however, cover the cost of installing this apparatus, and we are accordingly asking for \$3,500 for that purpose this year.

Paint Shop. — The present paint shop is located in the basement of the laundry building, the third floor of which is used as an industrial room. This is a violation of the laws of the State. A separate building should be erected for the paint shop as soon as possible. The estimated cost of such a structure is \$7,500.

Addition to Garage. — No garage was ever built for the hos-

pital. We have been using a remodeled boiler house for this purpose. This building should be enlarged as soon as possible, as our trucks now have to stand out of doors. Such an addition would cost about \$2,500.

New Laundry Machinery. — We are badly in need of additional laundry machinery. It is hardly necessary to say that this is needed on account of our increase in population. It is also very desirable to replace some machinery which has been in use for many years and is out of date. The amount requested is only sufficient to buy about one-third of the machinery we need at this time.

Addition to Laundry Building. — The present building was designed for a population much smaller than that cared for at the present time. An extensive addition to this plant can be avoided for the time being by building a small room at one end to be used as a sorting room. This will cost only about \$5,000 and will enable us to use the space in the main body of the laundry building to much greater advantage.

II. THE PSYCHOPATHIC DEPARTMENT.

The organization, objects and purposes of the psychopathic department were very materially modified by the action of the Commission on Mental Diseases in establishing the Massachusetts State Psychiatric Institute on May 1, 1919. The functions of the institute were clearly outlined by the Commission as follows: —

The research laboratories heretofore established and now maintained at the psychopathic department of the Boston State Hospital by the Massachusetts Commission on Mental Diseases are hereby continued and shall hereafter be known as the Massachusetts State Psychiatric Institute. Such institute shall be under the general supervision and control of the Massachusetts Commission on Mental Diseases, and shall be maintained by the Commission from appropriations obtained for the purpose.

The object of the institute shall be —

1. To make psychiatric and pathological researches and investigations.
2. To give instruction in psychiatry, neurology, pathology, psychology and social service, with special reference to instruction in the nature, causes, treatment and results of mental diseases and defects.
3. To promote the advancement of mental hygiene.
4. To encourage scientific work in the institutions.

5. To co-ordinate publications of a scientific nature.
6. To carry on the routine and special duties of the pathological service of the Commission.
7. To supervise and correlate the clinical and laboratory work of the institutions under the Commission.

For the purpose of clinical studies, scientific research and instruction, the clinical facilities of the institutions under the Massachusetts Commission on Mental Diseases, including the psychopathic department of the Boston State Hospital, shall be placed at the disposal of the institute.

The director of such institute shall be psychiatrist to the Massachusetts Commission on Mental Diseases. He shall be appointed, together with such other officers and employees as may be deemed necessary, and their compensation shall be fixed by the Commission. The director shall perform, under the direction of the Commission, such duties relating to psychiatric and pathological research and the instruction of medical staffs of the institutions under the Commission, and such other duties as may be required by the Commission. He shall have the supervision and control of such institute and of the physicians and other employees therein, subject to the general direction, supervision and control of the Commission. The institutions under the Commission shall co-operate with the institute in such manner as the Commission may, from time to time, direct. Such officers and employees as the Commission may determine shall, if required by the Commission, reside at the psychopathic department of the Boston State Hospital or such other institutions as may be determined, and shall be furnished maintenance in whole or part.

Dr. E. E. Southard, who has been the director of the psychopathic department since it was opened on June 24, 1912, resigned under date of May 19, 1919, to take up his work as director of the institute and undertake the development of the Commission's plans as outlined above. This, of course, has led to some changes in the plan of organization of the psychopathic department. The position of director has been abolished.

At a meeting held on June 9, 1919, the Board of Trustees voted to delegate "the supervision, direction and administration of the psychopathic department" to the superintendent of the hospital. Under his supervision, the chief executive officer has been given jurisdiction over the administrative and executive activities of the department, and the chief medical officer is held responsible for the clinical work of the medical staff, as well as the care and treatment of patients. This readjustment as a result of the establishment of the psychiatric institute has

relieved the psychopathic department of all responsibility for scientific research and investigation and left it with purely hospital functions. The organization of the psychopathic department as at present constituted may be described as including (1) the ward service, (2) the out-patient service, and (3) the social service. The pathological and psychological laboratories, the hydrotherapy, X-ray work and other necessary adjuncts to the medical service have, of course, been continued and are important correlaries.

The organization of the staff as constituted at present is as follows: The administration of the department is under the immediate supervision of the chief executive officer, with two assistants, — one executive officer and one assistant executive officer. The medical service is under the immediate supervision of the chief medical officer, who has under his direction two medical officers, four assistant medical officers and two internes. The out-patient service is under the immediate supervision of the chief medical officer of that department, with one medical officer under his charge and one assistant medical officer. The psychological service is under the immediate supervision of the chief psychologist, with one assistant psychologist and one interne in psychology. The social service is under the immediate supervision of the chief of social service, with three social workers.

The institution may be spoken of as being essentially of the temporary care type, not designed primarily either for the reception or for the care and custody of obviously committable cases but rather for the observation and treatment of incipient mental diseases as well as psychopathic conditions not properly coming within the fields covered by the State hospitals for the insane. It is the policy of the courts to commit directly to a State hospital for the insane all cases showing clearly the necessity of an extended period of hospital care and treatment. That there is a considerable number requiring a preliminary period of observation before their need for commitment can be definitely determined is conclusively shown by the fact that of the temporary care cases reaching the psychopathic department 40 per cent were subsequently committed and 22 per cent discharged as not insane.

MOVEMENT OF POPULATION.

The census on Sept. 30, 1918, was as follows: in the wards, men, 33, women, 56, total, 89; at home on visit, men, 18, women, 29, total, 47; making a total of 136, 51 men and 85 women, in the custody of the psychopathic department.

The general movement of population during the year is shown in the following statistical table:—

	Males.	Females.	Totals.
Insane patients on books Oct. 1, 1918,	52	83	135
Admissions during year:—			
First admissions,	800	722	1,522
Readmissions,	201	153 *	354
Readmissions (from hospital department),	4	—	4
Total admissions,	1,005	875	1,880
Transfers from other institutions for the insane,	1	1	2
Total received during year,	1,006	876	1,882
Total under treatment during year,	1,058	959	2,017
Discharged from books during year:—			
As recovered,	43	16	59
As improved,	89	75	164
As unimproved,	477	369	846
As not insane,	201	225	426
Transferred to hospital department,	138	172	310
Transferred to other institutions for the insane,	—	—	—
Died,	36	24	60
Total discharged and died during year,	984	881	1,865
Insane patients on books Sept. 30, 1919,	74	78	152

The census on Sept. 30, 1919, was as follows: in the wards, men, 45, women, 34, total, 79; at home on visit, men, 29, women, 44, total, 73; making a total of 152, 74 men and 78 women, in the custody of the psychopathic department.

The average daily population for the year was as follows: men, 43.56; women, 42.73; total, 86.29. The average daily number of committed cases was: men, 17.36; women, 19.69; total, 37.05. The average daily number of temporary care cases was: men, 17.36; women, 16.56; total, 33.92. The aver-

age daily number of voluntary cases was: men, 8.84; women, 6.48; total, 15.32. The average daily number of epileptics was: men, .24; women, .19; total, .43. The average daily number held under complaint or indictment was: men, 1.11; women, .48; total, 1.59. The average daily number at home on visit was: men, 28.11; women, 34.30; total, 62.41.

The recovery rate, based on the number of first admissions, was 3.88 per cent; based on the total number cared for during the year, 2.92 per cent; and based on the average daily population, 68.37 per cent.

The death rate, based on the number of first admissions, was 3.94 per cent; based on the total number cared for during the year, 2.97 per cent; and based on the average daily population, 69.53 per cent. Attention should be called to the fact that the recovery and death rates of an institution of the temporary care type are of comparatively little significance.

During the six years ending Sept. 30, 1918, 57.5 per cent of all admissions were admitted under the provisions of chapter 174 of the General Acts of 1915, and in accordance with the requirements of this law either committed to hospitals for the insane within ten days or discharged.

Of the first admissions, 649, or 42.64 per cent, were foreign born and 1,161, or 76.27 per cent, were of foreign parentage on one or both sides. The average age on admission was 35.28, only 103, or 6.77 per cent, being sixty years or over.

Of the 1,522 first admissions, the cause was unascertained or no cause given in 804 cases, or 52.82 per cent. In the 718 cases where a definite cause was assigned, the etiological factors were as follows: alcoholism, 185, or 25.77 per cent; arteriosclerosis, 19, or 2.65 per cent; involutional changes, 8, or 1.11 per cent; traumatism, 17, or 2.37 per cent; senility, 35, or 4.87 per cent; and syphilis, 129, or 17.97 per cent. There was a family history of mental disease in 180, or 25.07 per cent, and a family history of nervous disease in 22, or 3.06 per cent, of these cases.

The total number of admissions for the year was 1,882, of which 1,522 were first admissions and 360 readmissions. Four hundred and twenty, or 22.32 per cent, of the total admissions were discharged as not insane. Three hundred and ninety-one, or 20.83 per cent, of all cases admitted were committed to the

Boston State Hospital. Fifteen, or .79 per cent, were committed to private institutions, and 762, or 40.54 per cent, were committed to State or private hospitals for the insane during the year. Of the cases actually showing psychoses, 762, or 52.19 per cent, were committed to State or private hospitals for the insane.

The admissions for the year, classified according to legal status, were as follows: —

	Males.	Females.	Totals.
Temporary care cases (chapter 174, General Acts of 1915),	570	635	1,205
Boston police cases (chapter 307, Acts of 1910), . . .	175	76	251
Voluntary admissions (section 45, chapter 504, Acts of 1909),	207	137	344
Observation cases (chapter 145, General Acts of 1919), .	5	3	8
Cases pending examination and hearing (section 34, chapter 504, Acts of 1909).	7	8	15
Emergency commitments (section 42, chapter 504, Acts of 1909).	—	2	2
Cases held under complaint or indictment (chapter 46, General Acts of 1917).	32	14	46
Military cases (chapter 142, General Acts of 1918), . . .	5	—	5
Cases received by transfer (section 69, chapter 504, Acts of 1909).	5	1	6

It is interesting to note that of these admissions 64.03 per cent were temporary care cases, 13.33 per cent Boston police cases, 18.28 per cent voluntary patients, .43 per cent observation cases, .85 per cent cases pending examination and hearing, .11 per cent emergency commitments, and 2.44 per cent cases held under complaint or indictment. The Boston police, observation and emergency cases should be included, for statistical purposes, in the temporary care group, being all admissions of that general class, bringing the total up to 1,466, or 77.9 per cent of the number admitted.

Reference should be made at this time to the entirely too numerous methods of commitment. There would appear to be no reason why one legislative enactment should not cover all forms of temporary care. If this could be done, we would have to deal with only four different classes of cases, — temporary care, voluntary cases, emergency commitments and criminal cases. An analysis of 11,289 consecutive admissions to the psychopathic department shows that 57.5 per cent were tempo-

rary care cases (chapter 174 of the General Acts of 1915); 19.9 per cent Boston police cases (chapter 307 of the Acts of 1910); 1.6 per cent observation cases (section 43, chapter 504, Acts of 1909, and chapter 145, General Acts of 1919); 17.6 per cent voluntary admissions (section 45, chapter 504, Acts of 1909); .62 per cent emergency cases (section 42, chapter 504, Acts of 1909); .62 per cent committed "pending examination and hearing" (section 34, chapter 504, Acts of 1909); and .5 per cent held on the order of courts of criminal jurisdiction (chapter 46, General Acts of 1917). All forms of temporary care cases constituted 80.3 per cent of the total number admitted.

Twelve hundred and five temporary care cases (chapter 174, General Acts of 1915) were admitted during the year ending Sept. 30, 1919. Thirty-eight, or 3.15 per cent, were discharged recovered; 74, or 6.14 per cent, as improved; 541, or 44.89 per cent, as unimproved; and 246, or 20.41 per cent, as not insane. Five hundred and thirty-seven, or 44.65 per cent, were committed to State institutions; 15, or 1.24 per cent, to private hospitals; and 577, or 47.88 per cent, were discharged to the community as not requiring further care or treatment.

Two hundred and fifty-one Boston police cases (chapter 307, Acts of 1910) were admitted during the year. Thirteen, or 5.18 per cent, were discharged as recovered; 23, or 9.16 per cent, as improved; 107, or 42.63 per cent, as unimproved; and 32, or 12.75 per cent, as not insane. One hundred and twenty-two, or 48.61 per cent, were committed to State institutions, and 107, or 42.63 per cent, were discharged to the community as not requiring further care or treatment.

Eight observation cases (section 43, chapter 504, Acts of 1909, or chapter 145, General Acts of 1919) were admitted during the year. None were discharged as recovered; 2, or 25 per cent, as improved; 2, or 25 per cent, as unimproved; and 4, or 50 per cent, as not insane. None were transferred to other institutions. Two, or 25 per cent, were committed to State institutions, and 7, or 87.5 per cent, were discharged to the community as not requiring further care or treatment.

Fifteen cases pending examination and hearing (section 34, chapter 504, Acts of 1909) were admitted during the year. None were discharged as recovered; none as improved; 7, or

46.67 per cent, as unimproved; and 6, or 40 per cent, as not insane. Five, or 33.33 per cent, were committed to State institutions, and 8, or 53.33 per cent, were discharged to the community as not requiring further care or treatment.

Two emergency cases (section 42, chapter 504, Acts of 1909) were admitted during the year. These were both committed to a State hospital.

Fourteen hundred and eighty-six temporary care cases of all types were admitted during the year. Fifty-one, or 3.43 per cent, were discharged as recovered; 99, or 6.65 per cent, as improved; 661, or 44.48 per cent, as unimproved; and 288, or 19.38 per cent, as not insane. None were transferred to other institutions; 670, or 45.15 per cent, were committed to State institutions; 15, or 1.01 per cent, to private hospitals; and 701, or 47.17 per cent, were discharged to the community as not requiring further care or treatment.

Three hundred and forty-four voluntary cases (section 45, chapter 504, Acts of 1909) were admitted during the year. Six, or 1.74 per cent, were discharged as recovered; 36, or 10.46 per cent, as improved; 161, or 46.8 per cent, as unimproved; and 108, or 31.39 per cent, as not insane. None were transferred to other institutions; 65, or 18.89 per cent, were committed to State institutions; and 266, or 77.32 per cent, were discharged to the community as not requiring further care or treatment.

Forty-six cases were committed under the provisions of chapter 46 of the General Acts of 1917. None were discharged as recovered; 2, or 4.35 per cent, as improved; 18, or 39.13 per cent, as unimproved; and 24, or 52.17 per cent, as not insane. None were transferred to other institutions; 12, or 26.09 per cent, were committed to State institutions; and 32, or 69.56 per cent, were discharged to the community as not requiring further care or treatment.

Seven hundred and sixty-two cases were committed during the year on Probate Court commitments under the provisions of section 30, chapter 504, Acts of 1909.

The following tables show the psychoses of all admissions classified according to legal status: —

Temporary Care Cases (Chapter 174, General Acts of 1915).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses,				4	-	4
(a) Traumatic delirium,	2	-	2			
(c) Post-traumatic mental enfeeblement,	2	-	2			
Senile psychoses,				11	17	28
(a) Simple deterioration,	7	9	16			
(b) Presbyophrenic type,	-	3	3			
(c) Delirious and confused types,	1	-	1			
(d) Depressed and agitated states in addition to deterioration,	-	1	1			
(e) Paranoid types,	3	4	7			
Psychoses with cerebral arteriosclerosis,				28	9	37
General paralysis,				63	16	79
Psychoses with cerebral syphilis,				9	-	9
Psychoses with Huntington's chorea,				-	1	1
Psychoses with brain tumor,				1	-	1
Psychoses with other brain or nervous diseases,				6	7	13
Tubercular meningitis,	1	-	1			
Acute chorea,	-	1	1			
Organic brain disease,	4	6	10			
Tabes dorsalis,	1	-	1			
Alcoholic psychoses,				44	19	63
(b) Delirium tremens,	16	2	18			
(c) Korsakow's psychosis,	4	3	7			
(d) Acute hallucinosis,	15	5	20			
(e) Chronic hallucinosis,	2	-	2			
(g) Chronic paranoid type,	1	2	3			
(h) Alcoholic deterioration,	5	6	11			
(i) Undiagnosed acute alcoholic psychosis,	1	1	2			
Psychoses due to drugs and other exogenous toxins,				-	1	1
(a) Opium,	-	1	1			
Psychoses with other somatic diseases,				11	16	27
(a) Delirium with infectious diseases,	9	11	20			
(b) Post-infectious psychosis,	1	2	3			
(c) Exhaustion delirium,	-	1	1			
(d) Delirium of unknown origin,	1	1	2			
(g) Diabetes,	-	1	1			
Manic-depressive psychoses,				46	71	117
(a) Manic type,	21	31	52			
(b) Depressive type,	17	32	49			
(d) Mixed type,	8	8	16			
Involution melancholia,				5	18	23
Dementia præcox,				144	182	326
(a) Paranoid type,	69	88	157			
(b) Katatonic type,	25	36	61			
(c) Hebephrenic type,	43	55	98			
(d) Simple type,	7	3	10			
Paranoia or paranoic conditions,				13	28	41
Epileptic psychoses,				16	23	39
(a) Deterioration,	5	10	15			
(b) Clouded states,	11	13	24			
Psychoneuroses and neuroses,				10	22	32
(a) Hysterical type,	5	15	20			
(b) Psychasthenic type,	-	4	4			
(c) Neurasthenic type,	4	2	6			
(d) Anxiety neuroses,	1	1	2			

Temporary Care Cases (Chapter 174, General Acts of 1915 — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with constitutional psychopathic inferiority, . . . . .	. .	. .	. .	4	—	4
Psychoses with mental deficiency, . . . . .	. .	. .	. .	3	7	10
Undiagnosed psychoses, . . . . .	. .	. .	. .	55	56	111
Not insane, . . . . .	. .	. .	. .	80	126	206
(a) Epilepsy without psychosis,	3	6	9			
(b) Alcoholism without psychosis,	3	2	5			
(c) Drug addiction without psychosis,	2	1	3			
(d) Constitutional psychopathic inferiority without psychosis,	21	39	60			
(e) Mental deficiency without psychosis,	33	48	81			
(f) Others,	18	30	48			
Influenza,	1	—	1			
Conduct disorder,	5	16	21			
Syphilis of central nervous system,	—	3	3			
General syphilis,	2	—	2			
Depression,	2	4	6			
Brain tumor,	2	—	2			
Tabes dorsalis,	1	1	2			
Suicide attempt,	—	1	1			
Suicide threats,	—	1	1			
Hemiplegia,	1	—	1			
Laryngitis,	—	1	1			
Sydenham's chorea,	1	1	2			
Manic-depressive psychosis, recovered,	1	—	1			
Fractured skull,	2	—	2			
Question of dementia præcox; question of psychasthenia,	—	1	1			
Senility,	—	1	1			
No diagnosis, . . . . .	. .	. .	. .	17	16	33
Total, . . . . .	. .	. .	. .	570	635	1,205

Boston Police Cases (Chapter 307, Acts of 1910).

Traumatic psychoses, . . . . .	. .	. .	. .	1	—	1
(c) Post-traumatic mental enfeeblement,	1	—	1			
Senile psychoses, . . . . .	. .	. .	. .	—	2	2
(a) Simple deterioration,	—	1	1			
(c) Delirious and confused types,	—	1	1			
Psychoses with cerebral arteriosclerosis, . . . . .	. .	. .	. .	3	3	6
General paralysis, . . . . .	. .	. .	. .	9	—	9
Psychoses with cerebral syphilis, . . . . .	. .	. .	. .	3	—	3
Psychoses with other brain or nervous diseases, . . . . .	. .	. .	. .	2	—	2
Organic brain diseases,	2	—	2			
Alcoholic psychoses, . . . . .	. .	. .	. .	39	9	48
(b) Delirium tremens,	6	2	8			
(d) Acute hallucinosis,	22	2	24			
(e) Chronic hallucinosis,	2	1	3			
(g) Chronic paranoid type,	—	1	1			
(h) Alcoholic deterioration,	9	3	12			
Manic-depressive psychoses, . . . . .	. .	. .	. .	9	4	13
(a) Manic type,	6	4	10			
(b) Depressive type,	3	—	3			

Boston Police Cases (Chapter 307, Acts of 1910) — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Involution melancholia, . . . . .	.	.	.	-	2	2
Dementia præcox, . . . . .	.	.	.	56	29	85
(a) Paranoid type,	30	15	45			
(b) Katatonic type,	7	3	10			
(c) Hebephrenic type,	18	10	28			
(d) Simple type,	1	1	2			
Paranoia or paranoic conditions, . . . . .	.	.	.	6	6	12
Epileptic psychoses, . . . . .	.	.	.	7	1	8
(a) Deterioration,	5	1	6			
(b) Clouded states,	2	-	2			
Psychoneuroses and neuroses, . . . . .	.	.	.	-	1	1
(a) Hysterical type,	-	1	1			
Psychoses with constitutional psychopathic inferiority, . . . . .	.	.	.	1	-	1
Psychoses with mental deficiency, . . . . .	.	.	.	1	-	1
Undiagnosed psychoses, . . . . .	.	.	.	12	5	17
Not insane, . . . . .	.	.	.	24	10	34
(a) Epilepsy without psychosis,	4	-	4			
(b) Alcoholism without psychosis,	-	1	1			
(d) Constitutional psychopathic inferiority without psychosis,	4	5	9			
(e) Mental deficiency without psychosis,	12	3	15			
(f) Others,	4	1	5			
Amnesia,	1	-	1			
Aphonia,	1	-	1			
Conduct disorder,	2	-	2			
Senility,	-	1	1			
No diagnosis, . . . . .	.	.	.	2	4	6
Total, . . . . .	.	.	.	175	76	251

Observation Cases (Chapter 145, General Acts of 1919).

Alcoholic psychoses, . . . . .	.	.	.	1	-	1
(h) Alcoholic deterioration,	1	-	1			
Manic-depressive psychoses, . . . . .	.	.	.	-	2	2
(b) Depressive type,	-	2	2			
Dementia præcox, . . . . .	.	.	.	1	1	2
(a) Paranoid type,	1	-	1			
(d) Simple type,	-	1	1			
Not insane, . . . . .	.	.	.	3	-	3
(a) Epilepsy without psychosis,	1	-	1			
(e) Mental deficiency without psychosis,	2	-	2			
Total, . . . . .	.	.	.	5	3	8

Cases pending Examination and Hearing (Section 34, Chapter 504, Acts of 1909).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Senile psychoses,						
(a) Simple deterioration,	-	1	1	-	1	1
Psychoses with cerebral arteriosclerosis,				1	-	1
Psychoses with other brain or nervous diseases,				1	-	1
Paralysis agitans,	1	-	1			
Alcoholic psychoses,				2	1	3
(h) Alcoholic deterioration,	2	1	3			
Manic-depressive psychoses,				1	-	1
(a) Manic type,	1	-	1			
Dementia præcox,				-	2	2
(a) Paranoid type,	-	2	2			
Paranoia or paranoic conditions,				1	2	3
Not insane,				1	2	3
(d) Constitutional psychopathic inferiority without psychosis,	1	-	1			
(e) Mental deficiency without psychosis,	-	1	1			
(f) Others,	-	1	1			
Conduct disorder,	-	1	1			
Total,				7	8	15

Emergency Commitments (Section 42, Chapter 504, Acts of 1909).

Psychoses with cerebral syphilis,				-	1	1
Dementia præcox,				-	1	1
(c) Hebephrenic type,	-	1	1			
Total,				-	2	2

Psychoses of All Forms of Temporary Care Admissions during the Year.

Traumatic psychoses,				5	-	5
(a) Traumatic delirium,	2	-	2			
(c) Post-traumatic mental enfeeblement,	3	-	3			
Senile psychoses,				11	19	30
(a) Simple deterioration,	7	10	17			
(b) Presbyophrenic type,	-	3	3			
(c) Delirious and confused types,	1	1	2			
(d) Depressed and agitated states in addition to deterioration.	-	1	1			
(e) Paranoid types,	3	4	7			
Psychoses with cerebral arteriosclerosis,				31	12	43
General paralysis,				72	16	88
Psychoses with cerebral syphilis,				12	1	13

Psychoses of All Forms of Temporary Care Admissions during the Year
— Continued.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with Huntington's chorea, . . . . .	.	.	.	-	1	1
Psychoses with brain tumor, . . . . .	.	.	.	1	-	1
Psychoses with other brain or nervous diseases, . . . . .	.	.	.	8	7	15
Tubercular meningitis,	1	-	1			
Acute chorea,	-	1	1			
Organic brain disease,	6	6	12			
Tabes dorsalis,	1	-	1			
Alcoholic psychoses, . . . . .	.	.	.	84	28	112
(b) Delirium tremens,	22	4	26			
(c) Korsakow's psychosis,	4	3	7			
(d) Acute hallucinosis,	37	7	44			
(e) Chronic hallucinosis,	4	1	5			
(g) Chronic paranoid type,	1	3	4			
(h) Alcoholic deterioration,	15	9	24			
(i) Undiagnosed acute alcoholic psychosis,	1	1	2			
Psychoses due to drugs and other exogenous toxins, . . . . .	.	.	.	-	1	1
(a) Opium,	-	1	1			
Psychoses with other somatic diseases, . . . . .	.	.	.	11	16	27
(a) Delirium with infectious diseases,	9	11	20			
(b) Post-infectious psychosis,	1	2	3			
(c) Exhaustion delirium,	-	1	1			
(d) Delirium of unknown origin,	1	1	2			
(g) Others,	-	1	1			
Diabetes,	-	1	1			
Manic-depressive psychoses, . . . . .	.	.	.	55	77	132
(a) Manic type,	27	35	62			
(b) Depressive type,	20	34	54			
(d) Mixed type,	8	8	16			
Involution melancholia, . . . . .	.	.	.	5	20	25
Dementia præcox, . . . . .	.	.	.	201	213	414
(a) Paranoid type,	100	103	203			
(b) Katatonic type,	32	39	71			
(c) Hebephrenic type,	61	66	127			
(d) Simple type,	8	5	13			
Paranoia or paranoic conditions, . . . . .	.	.	.	19	34	53
Epileptic psychoses, . . . . .	.	.	.	23	24	47
(a) Deterioration,	10	11	21			
(b) Clouded states,	13	13	26			
Psychoneuroses and neuroses, . . . . .	.	.	.	10	23	33
(a) Hysterical type,	5	16	21			
(b) Psychasthenic type,	-	4	4			
(c) Neurasthenic type,	4	2	6			
(d) Anxiety neuroses,	1	1	2			
Psychoses with constitutional psychopathic inferiority, . . . . .	.	.	.	5	-	5
Psychoses with mental deficiency, . . . . .	.	.	.	4	7	11
Undiagnosed psychoses, . . . . .	.	.	.	67	61	128
Not insane, . . . . .	.	.	.	107	136	243
(a) Epilepsy without psychosis,	8	6	14			
(b) Alcoholism without psychosis,	3	3	6			
(c) Drug addiction without psychosis,	2	1	3			
(d) Constitutional psychopathic inferiority without psychosis,	25	44	69			

Psychoses of All Forms of Temporary Care Admissions during the Year
— Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
(e) Mental deficiency without psychosis,	47	51	98			
(f) Others,	22	31	53			
Influenza,	1	—	1			
Conduct disorder,	7	16	23			
Syphilis of central nervous system,	—	3	3			
General syphilis,	2	—	2			
Depression,	2	4	6			
Brain tumor,	2	—	2			
Tabes dorsalis,	1	1	2			
Suicide attempt,	—	1	1			
Suicide threat,	—	1	1			
Hemiplegia,	1	—	1			
Laryngitis,	—	1	1			
Sydenham's chorea,	1	1	2			
Manic-depressive psychosis recovered,	1	—	1			
Fractured skull,	2	—	2			
Question of dementia præcox, question of psychasthenia,	—	1	1			
Senility,	—	2	2			
Amnesia,	1	—	1			
Aphonia,	1	—	1			
No diagnosis,	—	—	—	19	20	39
Total,	—	—	—	750	716	1,466

Voluntary Cases (Section 45, Chapter 504, Acts of 1909).

Psychoses with cerebral arteriosclerosis,	—	—	—	5	3	8
General paralysis,	—	—	—	30	1	31
Psychoses with cerebral syphilis,	—	—	—	1	3	4
Psychoses with other brain or nervous diseases,	—	—	—	2	5	7
Organic brain disease,	2	4	6			
Acromegaly,	—	1	1			
Alcoholic psychoses,	—	—	—	11	2	13
(b) Delirium tremens,	3	1	4			
(d) Acute hallucinosis,	1	1	2			
(c) Chronic hallucinosis,	3	—	3			
(h) Alcoholic deterioration,	4	—	4			
Psychoses with other somatic diseases,	—	—	—	2	—	2
(a) Delirium with infectious diseases,	1	—	1			
(c) Cardiac diseases,	1	—	1			
Manic-depressive psychoses,	—	—	—	11	19	30
(a) Manic type,	4	4	8			
(b) Depressive type,	6	11	17			
(c) Stupor,	—	1	1			
(d) Mixed type,	1	3	4			
Involution melancholia,	—	—	—	—	3	3
Dementia præcox,	—	—	—	39	31	70
(a) Paranoid type,	19	18	37			
(b) Katatonic type,	3	6	9			
(c) Hebephrenic type,	14	4	18			
(d) Simple type,	3	3	6			
Paranoia or paranoic conditions,	—	—	—	6	3	9

Voluntary Cases (Section 45, Chapter 504, Acts of 1909) — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Epileptic psychoses,	2	2	4	2	3	5
(a) Deterioration,	2	2	4			
(b) Clouded states,	—	1	1			
Psychoneuroses and neuroses,	4	6	10	13	16	29
(a) Hysterical type,	6	2	8			
(b) Psychasthenic type,	3	5	8			
(c) Neurasthenic type,	—	3	3			
(d) Anxiety neuroses,						
Psychoses with constitutional psychopathic inferiority,				2	—	2
Psychoses with mental deficiency,				1	1	2
Undiagnosed psychoses,				8	6	14
Not insane,				57	28	85
(a) Epilepsy without psychosis,	5	1	6			
(b) Alcoholism without psychosis,	1	1	2			
(d) Constitutional psychopathic inferiority without psychosis,	14	7	21			
(e) Mental deficiency without psychosis,	11	10	21			
(f) Others,	26	9	35			
Multiple sclerosis,	—	1	1			
Conduct disorder,	3	2	5			
Myasthenia gravis,	1	—	1			
Depression,	3	3	6			
Undiagnosed organic brain disease,	3	—	3			
Cardiorenal disease,	1	—	1			
Arteriosclerosis,	1	—	1			
Syphilis,	2	1	3			
Arthritis,	1	—	1			
Syphilis of central nervous system,	7	1	8			
Tabes dorsalis,	4	—	4			
Tinnitus aurium,	—	1	1			
No diagnosis,				17	13	30
Total,				207	137	344

Cases held under Complaint or Indictment (Chapter 46, General Acts of 1917).

Psychoses with cerebral syphilis,	1	2	3
Alcoholic psychoses,	—	3	3
(h) Alcoholic deterioration,	—	3	3
Manic-depressive psychoses,	—	1	1
(b) Depressive type,	—	1	1
Dementia præcox,	10	2	12
(a) Paranoid type,	6	1	7
(c) Hebephrenic type,	3	1	4
(d) Simple type,	1	—	1
Paranoia or paranoic conditions,	1	—	1
Psychoneuroses and neuroses,	—	1	1
(a) Hysterical type,	—	1	1
Psychoses with mental deficiency,	1	—	1
Undiagnosed psychoses,	2	1	3

Cases held under Complaint or Indictment (Chapter 46, General Acts of 1917) — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Not insane,	1	—	1	17	4	21
(b) Alcoholism without psychosis,	8	1	9			
(d) Constitutional psychopathic inferiority without psychosis,	5	2	7			
(e) Mental deficiency without psychosis,	2	1	3			
(f) Others,	2	1	3			
Conduct disorder,						
No diagnosis,				1	—	1
Total,				32	14	46

Psychoses of All Admissions during the Year.

Traumatic psychoses,	2	—	2	5	—	5
(a) Traumatic delirium,	3	—	3			
(c) Post-traumatic mental enfeeblement,						
Senile psychoses,	7	11	18	11	20	31
(a) Simple deterioration,	—	3	3			
(b) Presbyophrenic type,	1	1	2			
(c) Delirious and confused types,	—	1	1			
(d) Depressed and agitated states in addition to deterioration,	3	4	7			
(e) Paranoid types,						
Psychoses with cerebral arteriosclerosis,				37	15	52
General paralysis,				102	17	119
Psychoses with cerebral syphilis,				14	6	20
Psychoses with Huntington's chorea,				—	1	1
Psychoses with brain tumor,				1	—	1
Psychoses with other brain or nervous diseases,	1	—	1	11	12	23
Tubercular meningitis,	—	1	1			
Acute chorea,	8	10	18			
Organic brain disease,	1	—	1			
Tabes dorsalis,	—	1	1			
Acromegaly,	1	—	1			
Paralysis agitans,						
Alcoholic psychoses,	25	5	30	98	34	132
(b) Delirium tremens,	4	3	7			
(c) Korsakow's psychosis,	38	8	46			
(d) Acute hallucinosis,	8	1	9			
(e) Chronic hallucinosis,	1	3	4			
(g) Chronic paranoid type,	21	13	34			
(h) Alcoholic deterioration,	1	1	2			
(i) Undiagnosed acute alcoholic psychosis,						
Psychoses due to drugs and other exogenous toxins,	—	1	1	—	1	1
(a) Opium,						
Psychoses with other somatic diseases,	10	11	21	13	16	29
(a) Delirium with infectious diseases,	1	2	3			
(b) Post-infectious psychosis,	—	1	1			
(c) Exhaustion delirium,	1	1	2			
(d) Delirium of unknown origin,	1	—	1			
(e) Cardiorenal diseases,	—	1	1			
(g) Other diseases or conditions,	—	1	1			
Diabetes mellitus,						

Psychoses of All Admissions during the Year — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Manic-depressive psychoses,	35	39	74	70	97	167
(a) Manic type,	26	46	72			
(b) Depressive type,	9	11	20			
(c) Stupor,						
(d) Mixed type,						
Involution melancholia,				5	24	29
Dementia præcox,	128	124	252	255	248	503
(a) Paranoid type,	36	45	81			
(b) Katatonic type,	79	71	150			
(c) Hebephrenic type,	12	8	20			
(d) Simple type,						
Paranoia or paranoic conditions,				27	39	66
Epileptic psychoses,	13	13	26	26	27	53
(a) Deterioration,	13	14	27			
(b) Clouded states,						
Psychoneuroses and neuroses,	9	23	32	23	40	63
(a) Hysterical type,	6	6	12			
(b) Psychasthenic type,	7	7	14			
(c) Neurasthenic type,	1	4	5			
(d) Anxiety neuroses,						
Psychoses with constitutional psychopathic inferiority,				7	—	7
Psychoses with mental deficiency,				6	8	14
Undiagnosed psychoses,				77	68	145
Not insane,	13	7	20	181	170	351
(a) Epilepsy without psychosis,	5	4	9			
(b) Alcoholism without psychosis,	2	1	3			
(c) Drug addiction without psychosis,	48	52	100			
(d) Constitutional psychopathic inferiority without psychosis,	63	64	127			
(e) Mental deficiency without psychosis,	50	42	92			
(f) Others,	1	—	1			
Influenza,	12	20	32			
Conduct disorder,	8	4	12			
Syphilis of central nervous system,	3	1	4			
General syphilis,	5	7	12			
Simple depression,	2	—	2			
Brain tumor,	5	1	6			
Tabes dorsalis,	—	1	1			
Suicidal attempt,	—	1	1			
Suicidal threat,	—	1	1			
Hemiplegia,	1	—	1			
Laryngitis,	—	1	1			
Sydenham's chorea,	1	1	2			
Manic-depressive insanity, recovered,	1	—	1			
Fractured skull,	2	—	2			
Question of dementia præcox, question of psychasthenia,	—	1	1			
Senility,	—	2	2			
Amnesia,	1	—	1			
Aphonia,	1	—	1			
Myasthenia gravis,	1	—	1			
Undiagnosed organic brain disease,	3	—	3			
Cardiorenal disease,	1	—	1			
Arteriosclerosis,	1	—	1			
Arthritis,	1	—	1			
Tinnitus aurium,	—	1	1			
Multiple sclerosis,	—	1	1			
No diagnosis,				37	33	70
Total,				1,006	876	1,882

Psychoses of Cases admitted for Observation and subsequently committed.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses,				2	-	2
(c) Post-traumatic mental enfeeblement,	2	-	2			
Senile psychoses,				7	15	22
(a) Simple deterioration,	5	9	14			
(b) Presbyophrenic type,	-	1	1			
(c) Delirious and confused types,	-	1	1			
(e) Paranoid types,	2	4	6			
Psychoses with cerebral arteriosclerosis,				20	12	32
General paralysis,				77	13	90
Psychoses with cerebral syphilis,				4	3	7
Psychoses with Huntington's chorea,				-	1	1
Psychoses with brain tumor,				2	-	2
Psychoses with other brain or nervous diseases,				6	5	11
Undiagnosed organic brain disease,	5	5	10			
Tabes dorsalis,	1	-	1			
Alcoholic psychoses,				31	12	43
(b) Delirium tremens,	2	-	2			
(c) Korsakow's psychosis,	3	3	6			
(d) Acute hallucinosis,	13	1	14			
(e) Chronic hallucinosis,	2	1	3			
(g) Chronic paranoid type,	1	1	2			
(h) Alcoholic deterioration,	10	6	16			
Psychoses with other somatic diseases,				4	6	10
(a) Delirium with infectious diseases,	3	5	8			
(c) Exhaustion delirium,	-	1	1			
(e) Cardiorenal diseases,	1	-	1			
Manic-depressive psychoses,				39	56	95
(a) Manic type,	22	26	48			
(b) Depressive type,	11	22	33			
(c) Stupor,	1	-	1			
(d) Mixed type,	5	8	13			
Involution melancholia,				3	12	15
Dementia præcox,				138	161	299
(a) Paranoid type,	77	79	156			
(b) Katatonic type,	24	36	60			
(c) Hebephrenic type,	37	46	83			
Paranoia or paranoic conditions,				16	21	37
Epileptic psychoses,				7	7	14
(a) Deterioration,	4	4	8			
(b) Clouded states,	3	3	6			
Psychoneuroses and neuroses,				2	1	3
(a) Hysterical type,	-	1	1			
(b) Psychasthenic type,	2	-	2			
Psychoses with constitutional psychopathic inferiority,				2	-	2
Psychoses with mental deficiency,				4	4	8
Undiagnosed psychoses,				28	36	64
Not insane,				1	3	4
(a) Epilepsy without psychosis,	-	1	1			
(c) Drug addiction without psychosis,	-	1	1			
(d) Constitutional psychopathic inferiority without psychosis,	1	-	1			
(e) Mental deficiency without psychosis,	-	1	1			
No diagnosis,				-	1	1
Total,				393	369	762

An analysis of 9,222 temporary care cases shows the psychoses represented to be as follows: "Alcoholic psychoses, 10.4 per cent (972); dementia præcox, 24.2 per cent (2,253); manic-depressive insanity, 10.3 per cent (963); senile psychoses, 3.4 per cent (320); general paresis, 5.8 per cent (544); arteriosclerosis, 3.1 per cent (294); epilepsy, 1.5 per cent (143); imbecility, .26 per cent (25); not insane, 21.06 per cent (1,955); and unclassified, 8.9 per cent (834)." ("Functions of the Psychopathic Hospital," American Journal of Insanity, July, 1919.)

An analysis of 780 cases discharged as not insane shows that they consisted of the following: "Feeble-minded, 287 (36 per cent); alcoholism, 68 (8.9 per cent); epilepsy, 66 (8.7 per cent); syphilis, 25 (3.2 per cent); brain disease, 18 (2.3 per cent); morphinism, 11 (1.4 per cent); hysteria, 45; neurasthenia, 20; psychasthenia, 10; total psychoneuroses, 140 (17.9 per cent); constitutional psychopathic inferiority, 90 (11 per cent); normal, 20 (2.5 per cent); miscellaneous, 9 (1 per cent); chorea, 6; dysthyroidism, 6; senile, 4; tuberculosis, 2; typhoid fever, 2; somatic and non-mental, 6; arteriosclerosis, 6; brain tumor, 2; traumatic, 2; acute meningitis, 2; cardiorenal, 1; septic, 1." ("Functions of the Psychopathic Hospital," American Journal of Insanity, July, 1919.)

An analysis of 1,263 voluntary cases shows the following psychoses represented: "Alcoholic psychoses, 6.8 per cent (86); dementia præcox, 18.21 per cent (230); manic-depressive insanity, 6.8 per cent (84); involution melancholia, 1.03 per cent (13); senile psychoses, 1.42 per cent (18); general paralysis, 7.36 per cent (93); epilepsy, 1 per cent (12); psychoneuroses, 1.74 per cent (22); not insane, 35.55 per cent (449); unclassified, 11.64 per cent (147)." ("Functions of the Psychopathic Hospital," American Journal of Insanity, July, 1919.)

A study of the hospital residence of the cases discharged during the statistical year is of considerable interest: —

One thousand three hundred and seven, or 70.08 per cent, were discharged after a residence of ten days or less; 1,469, or 78.76 per cent, after a residence of two weeks or less; 1,589, or 85.19 per cent, after a residence of three weeks or less; 1,691, or 90.66 per cent, after a residence of one month or less; 1,808, or 97.09 per cent, after a residence of two months or less; 1,838, or 98.70 per cent, after a residence of three months or less.

This would indicate very strongly the necessity of extending the period of temporary care, if possible, to three months.

OUT-PATIENT SERVICE.

During the five years ending Sept. 30, 1918, 6,532 new cases were reported in the out-patient service, — an average of 1,306.2 cases per year. Fifty-eight per cent of these consisted of adults, 16 per cent of adolescents, 24 per cent of children, and 5 per cent of infants. Of these, 4.9 per cent were referred to the out-patient service by courts, 4.8 per cent by schools, 12.6 per cent by hospitals, 9 per cent by physicians, and 3.5 per cent by other individuals. It is interesting to note that 12.5 per cent came on their own initiative. Seventeen and seven-tenths per cent came from the wards of the psychopathic department and 9.2 per cent were sent by the social service.

During the year ending Sept. 30, 1919, 1,577 new cases were reported. A classification of the new cases by age groups is shown in the following table: —

	Males.	Females.	Totals.
Infants (under 2 years of age),	6	7	13
Children (male, 2 to 14 years; female, 2 to 12 years),	253	148	401
Adolescents (male, 14 to 21 years; female, 12 to 21 years),	81	190	271
Adults,	324	568	892
Total,	664	913	1,577

It will be noted that of the total number as shown above, 56.56 per cent were adults, 17.19 per cent adolescents, 25.43 per cent children, and .82 per cent infants.

The source of origin of these cases is shown in the following table: —

Referred by courts,	80
Referred by schools,	55
Referred by other hospitals,	163
Referred by social agencies,	391
Referred by Red Cross,	56
Referred by physicians,	182
Referred by psychopathic department, wards,	165
Referred by psychopathic department, social service, syphilis division,	184
Came on own or relatives' initiative,	301
Total,	1,577

As shown by the above tabulation, 5.07 per cent of these cases were referred by courts, 3.49 per cent by schools, 10.34 per cent by hospitals, 24.79 per cent by social agencies, 3.55 per cent by the Red Cross, 11.54 per cent by physicians, 10.46 per cent by the wards of the psychopathic department, 11.67 per cent by the syphilis division of the psychopathic social service department, and 19.09 per cent came on their own initiative or were sent by relatives.

The problems presented by these various cases are shown in the following table: —

Mental condition of —

(a) Returned soldier,	14
(b) Adult offenders,	30
(c) Juvenile delinquents,	79
(d) Sex offenders,	110
Unmarried mothers,	17
(e) Backward child,	273
(f) Unemployed person,	9
(g) Alcoholic,	5
(h) Suspected insane person,	259
(i) Child to be placed out or adopted,	17
Condition of families of syphilitics,	170
Question of epilepsy,	51
After-care: —	
Patients on visit from Boston State Hospital,	11
Patients on visit from other State hospitals,	10
Patients discharged from psychopathic department to out-patient service,	137
Physical condition,	148
Question of psychoneurosis,	199
Question of syphilis,	38
Total,	1,577

Of the 1,577 cases reported, as shown above, 46.73 per cent were cases examined to determine the possible existence of some mental disease, 8.05 per cent were sex offenders, 10.78 per cent were cases sent for examination on account of the existence of syphilis in the family, 8.69 per cent were cases previously discharged from the wards of the psychopathic department, and 9.38 per cent were cases for physical examination only. In 12.62 per cent of these cases the only question at issue was the possible existence of a psychoneurosis, and in 2.41 per cent the

only purpose of the examination was to diagnose syphilis, if present.

The psychoses of these cases were as follows:—

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses, . . . . .	.	.	.	6	5	11
(a) Traumatic delirium,	2	2	4			
(c) Post-traumatic mental enfeeblement,	4	3	7			
Senile psychoses, . . . . .	.	.	.	2	1	3
(a) Simple deterioration,	1	—	1			
(f) Presenile types,	1	1	2			
Psychoses with cerebral arteriosclerosis, . . . . .	.	.	.	3	3	6
General paralysis, . . . . .	.	.	.	14	1	15
Psychoses with cerebral syphilis, . . . . .	.	.	.	1	—	1
Psychoses with brain tumor, . . . . .	.	.	.	1	1	2
Psychoses with other brain or nervous diseases, . . . . .	.	.	.	11	11	22
Meningitis,	—	1	1			
Organic brain disease,	9	10	19			
Organic dementia,	1	—	1			
Cerebral hemorrhage,	1	—	1			
Alcoholic psychoses, . . . . .	.	.	.	24	13	37
(b) Delirium tremens,	4	1	5			
(c) Korsakow's psychosis,	2	1	3			
(d) Acute hallucinosis,	13	7	20			
(e) Chronic hallucinosis,	1	2	3			
(h) Alcoholic deterioration,	4	2	6			
Psychoses due to drugs, . . . . .	.	.	.	1	1	2
Psychoses with other somatic diseases, . . . . .	.	.	.	5	12	17
(b) Post-infectious psychosis,	2	2	4			
(c) Exhaustion delirium,	—	4	4			
(e) Cardiorenal diseases,	—	4	4			
(g) Other forms,	3	2	5			
Toxic delirium,	3	—	3			
Toxic with epilepsy,	—	1	1			
Psychosis with acromegaly,	—	1	1			
Manic-depressive psychoses, . . . . .	.	.	.	11	32	43
(a) Manic type,	—	3	3			
(b) Depressive type,	8	27	35			
(d) Mixed type,	3	2	5			
Involution melancholia, . . . . .	.	.	.	1	2	3
Dementia præcox, . . . . .	.	.	.	45	53	98
(a) Paranoid type,	11	14	25			
(b) Katatonic type,	1	3	4			
(c) Hebephrenic type,	8	9	17			
(d) Simple type,	18	21	39			
Unclassified,	7	6	13			
Paranoia or paranoic conditions, . . . . .	.	.	.	1	4	5
Epileptic psychoses, . . . . .	.	.	.	4	1	5
(a) Deterioration,	3	1	4			
(b) Clouded states,	1	—	1			
Psychoneuroses and neuroses, . . . . .	.	.	.	58	145	203
(a) Hysterical type,	10	14	24			
(b) Psychasthenic type,	11	14	25			
(c) Neurasthenic type,	33	114	147			
Unclassified,	4	3	7			
Psychoses with constitutional psychopathic inferiority, . . . . .	.	.	.	—	1	1

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with mental deficiency, . . . . .	.	.	.	-	3	3
Undiagnosed psychoses, . . . . .	.	.	.	21	34	55
Not insane, . . . . .	.	.	.	455	590	1,045
(a) Epilepsy without psychosis,	30	26	56			
(b) Alcoholism without psychosis,	1	-	1			
(c) Drug addiction without psychosis,	1	-	1			
(d) Constitutional psychopathic inferiority without psychosis,	32	22	54			
(e) Mental deficiency without psychosis,	122	161	283			
(f) Others,	269	381	650			
Mental deficiency plus cretinism,	-	1	1			
Retarded,	19	23	42			
Subnormal,	9	18	27			
Delinquent,	10	9	19			
Sex delinquent,	-	12	12			
Illegitimate maternity,	-	17	17			
Paralysis agitans,	1	1	2			
Multiple sclerosis,	2	-	2			
Chorea,	5	3	8			
Tabes dorsalis,	7	2	9			
Organic disease of cord,	1	1	2			
Cortical injury,	1	-	1			
Cerebral arteriosclerosis,	6	1	7			
Infantile cerebral hemiplegia,	-	1	1			
Hereditary cerebellar ataxia,	-	1	1			
Aortic and mitral insufficiency,	1	-	1			
Peripheral facial paralysis,	-	2	2			
Trifacial neuralgia,	1	-	1			
Facial tic,	1	-	1			
Neuritis,	1	-	1			
Brachial neuritis,	-	1	1			
Sciatica,	1	-	1			
Tower head,	1	-	1			
Hydrocephalus,	2	2	4			
Migraine,	-	1	1			
Fractured skull,	1	-	1			
Myasthenia gravis,	1	-	1			
Neurosyphilis,	17	4	21			
Conjugal syphilis,	6	16	22			
Congenital syphilis,	6	2	8			
Arteriosclerosis,	4	3	7			
Neurocirculatory asthenia,	-	1	1			
Graves' disease,	-	1	1			
Arterial hypertension,	-	2	2			
Nocturnal enuresis,	-	2	2			
Anæmia, secondary,	-	1	1			
Splenic anæmia,	1	-	1			
Pernicious anæmia,	-	1	1			
Menopause,	-	1	1			
Deaf mute,	-	1	1			
Arthritis,	2	6	8			
Osteo arthritis,	1	1	2			
Orthopedic condition,	-	4	4			
Heart disease,	1	2	3			
Myalgia,	-	1	1			
Hyperthyroidism,	-	2	2			
Ear disease,	2	-	2			
Eye disease,	1	2	3			
Skin disease,	1	2	3			
Throat disease,	1	-	1			
Tuberculosis,	1	-	1			
Speech defect,	6	-	6			
Nervous inability,	-	1	1			
Obesity,	-	1	1			
Varicose veins,	-	4	4			
Cholecystitis,	-	1	1			
Deferred,	33	35	68			
No disease,	115	188	303			
Totals, . . . . .	.	.	.	664	913	1,577

It will be noted that of these .95 per cent were cases of general paralysis, 1.52 per cent psychoses with organic brain disease, 2.35 per cent alcoholic psychoses, 2.73 per cent manic-depressive psychoses, 6.21 per cent dementia præcox, 12.87 per cent psychoneuroses, 3.49 per cent undiagnosed psychoses, and 66.26 per cent not insane. Of the not insane group, 5.36 per cent were epileptics, 27.08 per cent mental defectives, 4.02 per cent retarded, 2.58 per cent subnormal, and 29 per cent showed no disease either mental or physical.

The disposition of these cases is shown in the following table:—

	Males.	Females.	Totals.
Observation in wards recommended,	63	68	131
Commitment to institution for feeble-minded recommended,	64	64	128
Commitment to institution for insane recommended,	10	16	26
Commitment to penal institution recommended,	1	2	3
General hospital care recommended,	28	35	63
Psychopathic out-patient care recommended,	269	321	590
Report and advice given school,	15	12	27
Report made to court,	31	13	44
Report made and advice given to social agency,	65	231	296
Report and advice given to physician,	14	8	22
Treatment for syphilis recommended,	24	25	49
No treatment,	80	118	198
Total,	664	913	1,577

It will be noted that 37.41 per cent of these cases were looked upon as being proper cases for supervision and treatment in the out-patient service, 8.12 per cent were recommended for commitment to institutions for feeble-minded, 12.56 per cent required no treatment, and observation in the wards was recommended in 8.31 per cent. It is interesting to note that in only 1.65 per cent of these cases was commitment to institutions for the insane deemed necessary. Four per cent of the cases were referred to general hospitals for further treatment. Eighteen and seventy-seven hundredths per cent of the cases were referred to other social agencies with some report as to their subsequent care.

An interesting and exhaustive study of the work done by the out-patient service during the year has been made by Dr. Abraham Myerson, who has had charge of the service for a number of years and resigned on Aug. 15, 1919. The results of his special study will be published in full in the *American Journal of Insanity*. Reprints of this article may be obtained on application to Dr. Myerson.

SOCIAL SERVICE.

The functions of the social service have been very clearly outlined by Miss Hannah Curtis, director of social work for the Department of Mental Diseases, as follows: (a) social case work; (b) follow up work; (c) research work; (d) educational work: —

Social Case Work. — Cases are referred by physicians and outside agencies and in some cases are selected by the social worker. Reasons for reference are varied, — after-care, history, supervision, adjustment problems, follow up or for whatever need may be most apparent. Two general case workers handle the regular hospital cases, each averaging about thirty cases per month. These cases are divided into slight service and intensive social cases.

Follow Up Work. — This work is largely confined to the syphilis clinic (at this time full information could not be obtained as worker is on vacation). The policy of this clinic work is to follow up patients whose blood has shown a positive reaction to the Wassermann test and to urge such patients to take regular treatment at the hospital. Families of these patients are located and urged to apply to the hospital for examination and treatment. Letters and home visits are methods used in this work; the social worker is in charge of the syphilis clinic two days a week, the remainder of the time being spent in follow up and clerical work connected with the clinic.

Research Work. — At this particular time research work is mostly confined to employment problems. The special worker selects and takes referred cases, secures industrial histories and gathers facts relative to research work for mental patients in industry. To some extent she aids in industrial problems, and averages about fifteen cases per month. Research work in the syphilis clinic has been temporarily discontinued on account of the absence of the research worker, Mrs. Solomon. It is expected that this work will be resumed at an early date.

Plans are in process of formation to extend research work into other fields.

The Metropolitan Red Cross Division has one worker in this department who handles soldier cases, and is under the direction of the chief

of social service, as are all other special workers. An extension of activities is said to be under consideration by the Red Cross, including a second worker and stenographer to be located in this department.

Education. — Considerable time and effort have been expended on educational measures for public enlightenment and for the promotion of psychiatric social work. This has been accomplished in various ways, — publication, conferences, lectures, training and teaching of students and others. The training of Smith College summer course students is considered an important feature of this department. Daily staff meetings are held in this department for the presentation and discussion of social cases. Educational work in psychiatric social service is considered one of the main and possibly the most important function of the department.

The routine work of the social service has been outlined by Miss Helen L. Myrick, as follows: —

1. How cases are referred: —

- (a) By house medical service, out-patient clinic, other social agencies, friends and relatives, and own initiative.

2. Assignments: —

- (a) After the case is referred, it is assigned to one of the social workers in rotation. A rotation sheet is kept for this purpose so that each worker has an equal number of cases.

3. Investigation: —

- (a) After a case is referred, the worker makes a folder for the case.
(b) Copies social facts from the medical record on memorandum sheet for the social record.
(c) Interviews the doctor in regard to special problems involved in case.
(d) Interviews patient on the wards for social history and exact names and addresses of references, which she notes on social service record.
(e) Registers the case at the Confidential Exchange of Information and finds out whether it is known to any other social agencies.
(f) Registers case in social service.
(g) Secures history from agencies by looking up any agencies who already know the patient and getting facts from them. It may be that one of these agencies is in active touch with the patient and his family in which case that agency secures the information required by the doctor. In many instances, however, the agencies have known the patient in the past and are not dealing with him at present, in which case we learn all the facts from their records.
(h) Writes or telephones relatives or friends from whom the doctors wish to secure history.
(i) Visits neighbors, employers and other original sources to secure history.

4. Morning discussion: —

- (a) At the end of four days every case comes up automatically for morning discussion, which is held every morning from 8.45 to 9.15 A.M. At this time the preliminary investigation is supposed to be completed, and a summary of the case is presented to the social service staff under the headings social, physical and mental. A social analysis is made of the social problems presented and tentative plans for the future are discussed. At the end of three months every case comes up automatically for discussion, at which time a summary of the history is presented to the staff by the worker and a summary of the results obtained during the three months is also presented. The original analysis of the social problem is discussed, and if any of the difficulties have been removed we make a note to that effect and if any additional difficulties have arisen those are also noted at this time. A discussion is held as to future plans of action.

5. Records: —

- (a) Entries on records are kept in chronological order of all history obtained on each patient and all action taken on each patient. This includes advice from the doctors. These records are kept in social service until the case is closed, when they are filed with the medical records.
- (b) A copy of the record of outside history secured for diagnosis is given the doctor within twenty-four hours after the case is referred.

6. Monthly statistics: —

- (a) The workers keep a statistical sheet on which is noted the name and other statistics of the patient. At the end of each month these statistics are compiled by each worker and then added up for the department as a whole.

7. Expense accounts: —

- (a) Each worker keeps account of her traveling expenses incurred in the line of duty. These are compiled on the twenty-third of each month and given to the chief executive officer.

8. Meetings: —

- (a) The director of social work of the Commission on Mental Diseases holds monthly meetings the third Friday of every month, lasting about three hours, for the discussion of details of psychiatric social work in connection with State hospitals. The head social worker or one assistant attends these meetings.

Types of Cases handled by the Regular Staff.

1. Those known to other agencies:—

- (a) Quite a little time is spent by each worker on slight service cases, securing information from other agencies on patients being actively dealt with by them. This information is needed by the doctor for diagnosis. Social advice is frequently given to other agencies handling difficult mental cases. This slight service is all that is done in connection with these cases; the responsibility for the patient's welfare is left with the agency who is dealing with the case.
- (b) Steering patients or the families of patients to the special agencies for special purposes, such as child-placing agencies for foster homes, relief agencies for financial relief of families of patients who have been committed.

2. Intensive cases:—

- (a) Histories on cases which cannot be diagnosed without history from outside sources. Fifty-three per cent of the total number of social service cases during the year 1917 to 1918 were those requiring history for diagnosis.
- (b) Histories on all patients sent here from the court.
- (c) Action taken:—
 - (a) Families of patients who are in the house.
 - (a) Arrangements for financial assistance for the family; visiting housekeeper, recreation and education for children.
 - (b) After care of patients who have been in the house and patients attending the out-patient clinic. These are patients who are not being dealt with actively by any other social agency, but need one or all of these various kinds of after-care. Other agencies may be called in to assist in solving special problems, but this department assumes the full responsibility for adjusting the patient to his environment according to the doctor's advice. Some patients may need simply one or two of the types of after-care mentioned below, and some may need, besides this, close supervision, especially the types of cases mentioned under "supervision," *i.e.*, delinquent girls, unmarried mothers and alcoholics, psycho-neurotic and psychotic patients.

- (a) Arrangements for medical treatment: —
 - (a) Persuading patients to report regularly.
 - (b) Arrangements for transportation of patients to clinics.
 - (c) Arrangements with employers for patients to have time off to come in for treatment.
 - (d) Oversight of patients in regard to carrying out the doctor's orders for care of physical health, as well as mental health.
- (b) Convalescent care: —
 - (a) Vacations secured upon recommendation of doctor and financial assistance rendered when necessary.
 - (b) Convalescent care, when recommended by the doctor, for patients who cannot afford such care.
 - (c) Securing sanatorium care for patients when recommended by the doctor.
- (c) Employment: —
 - (a) Consulting the doctor as to general type of work patient can do.
 - (b) Securing employment, upon recommendation of the doctor, which is adapted to patient's mental condition.
 - (c) Visiting employers to enlist their co-operation in placing the patient to advantage and in understanding patient's difficulties of personality.
- (d) Arrangements made for financial assistance: —
 - (a) Long-continued financial assistance secured from the Boston Provident Association, Overseers of the Poor, Federated Jewish Charities, etc.
 - (b) Small amounts of aid of a temporary nature secured from the Lend-a-Hand Society, American Invalid Aid Society, etc.
- (e) Arrangements made for institutional care: —
 - (a) Children to be placed out when home conditions are impossible.
 - (b) Care for epileptics, feeble-minded and sick poor at Monson, Waverley, Tewksbury, etc.
- (f) Arrangements made for home care: —
 - (a) Homeless men.
 - (b) Homeless women.
 - (c) Arrangements with families for proper living quarters for the patient.
 - (d) Visiting patient after he goes home to see if living arrangements are adequate and whether there are any further social problems which need attention.

(g) Arrangements made for special education:—

- (a) Visiting housekeeper secured.
- (b) Arrangements made for education of the patient or some member of his family in some special trade.
- (c) Occupational therapy secured when recommended by the doctors.
- (d) Vocational guidance for the children of the patient.

(h) Supervision:—

The cases requiring close supervision are chiefly—

(a) Delinquent girls:—

With psychopathic delinquents as with all psychopaths a social worker attempts to lessen the difficulties in the environment so that adjustments for the patient are less complex and difficult.

(a) Providing wholesome outlet for their emotional life.

(b) Surrounding them with wholesome environment, the various elements of which encourage patient rather than discourage her to better habits of thought and behavior, such as good food, attractive room, pleasant companions, money for clothes, etc.

(c) Calling on various resources in the community to assist the girl in her own rehabilitation.

(a) Social clubs, settlements and community houses.

(b) Church interests.

(c) Wholesome moving pictures.

(d) Providing for unmarried mother:—

(a) Steering her to a maternity home for confinement.

(b) Working with the girl's family to get them into the right attitude toward the patient.

(c) Planning with the patient, her family and the maternity home for her future with the child.

(b) Alcoholics:—

(a) Providing substitutes for the saloon.

(b) Enlisting encouragement from patient's family, friends, priest and employer.

(c) Psychoneurotic patients:—

All of the above types of social care may be needed to care for psychoneurotic patients with borderline cases of psychoneurosis. The social worker attempts to see that all unnecessary strain be removed which would accelerate or aggravate a possible psychosis.

- (d) Psychotic cases: —
- (a) Oversight of these patients is given for the purpose of preventing them from getting into social difficulties by keeping their lives as routine and normal as possible.
 - (b) Report is given to the doctor of patient's behavior during intervals between the doctor's examinations. The doctor can thus judge whether the patient should be admitted to the hospital.
 - (c) Education of the relatives as to the right method of treating patient. This is a very important part of our work, and we have been successful in many cases in creating a better understanding between husband and wife, mother and daughter, etc. In some cases the doctor advises removing the patient from his family, in which case we have to find congenial surroundings for the patient.

Types of Cases handled by Special Workers.

- 1. Follow up service in the out-patient clinic: —
 - (a) Sending out form letters to patients or their guardians, urging them to report back to the doctor when they fail to do so.
 - (b) Visiting those patients who do not respond to two letters. These visits are for the purpose of persuading the patient to return to the hospital for treatment. During these visits the worker may observe some problem of social maladjustment, in which case she refers the case to social service to take up. This work is invaluable and needs to be done by a person who has tact and judgment as well as insight, in order to get good co-operation with the patients and their families.
- 2. Syphilis follow up: —
 - (a) The work of this department is similar to that of the out-patient department follow up, but is more complicated because visits are made to the patients' families for the purpose of persuading the different members to come in for the blood test as well as getting patients themselves to come in for treatment.

An analysis of the work done by the social service department during the year shows the cases under supervision to have been as follows: —

New cases,	570
Renewed cases,	53
Cases continued from previous year,	61

Total number of cases dealt with,	684
Cases closed during the year,	567
Cases under care at the end of the year,	117

The purposes for which the new cases were referred were as follows: —

Medical history,	399
Financial aid,	8
Arrangements to be made for home care,	6
Supervision,	19
Advice,	138
<hr/>	
Total,	570

The nature of the service rendered in these cases is shown in the following table: —

Medical history,	399
Financial aid,	6
Arrangements made for home care,	8
Supervision,	19
Advice,	138
<hr/>	
Total,	570

A detailed statistical report of the work done by the social service for the year is not available owing to the fact that a new system of records recently adopted does not cover that complete period.

Since May, 1919, the metropolitan chapter of the American Red Cross Society has maintained a worker at the psychopathic department to deal with men who have been in military service. Her duties have been to secure histories for diagnosis, to attend to all details of war risk insurance, compensation, etc., when necessary, to arrange for the discharge of these patients, to report to the Red Cross authorities, and do intensive social work on all mental cases discharged to the community. She has had under her supervision a total of 88 patients.

Miss Clare W. Butler has had special charge of social work relating to employment. She has made special detailed studies of 31 cases and has rendered valuable services in working on employment problems.

Special follow up work has been done in 33 cases in connection with the treatments for syphilis.

During the year nine students have completed the training in practical case work. Seven of these were sent to the department by the Smith College Training School for Social Workers. Two finished the eight months' course offered by the social service department before the Smith College Training School was established. Seven more students from Smith College started on the course of instruction in September. Five others started earlier in the year, some of whom have been compelled to discontinue their work since.

GENERAL STATEMENT.

An effort has been made to amplify and systematize the statistical reports and records of the department. The psychoses of all admissions are shown this year for the first time, temporary care cases only have been covered heretofore. The psychoses of voluntary patients have appeared in only three reports, — those of 1913, 1914 and 1918. The ultimate disposition of these various classes of admissions is as interesting as it is important. A study of the not insane group should prove particularly valuable, these cases constituting one of the most interesting fields covered by the so-called psychopathic hospitals. The statistics relating to the hospital residence of cases discharged during the year have a very material bearing on the important question of temporary care. To render this information available, a complete revision of the methods used in making the statistical reports has been necessary. The out-patient and social service departments have been included in this general plan. Especially interesting results of this work are shown in the reports of the out-patient service prepared under the supervision of Dr. Myerson. Unfortunately, the field covered by the social service department cannot be shown in detail until next year.

Hydrotherapy has continued to play an important part in the treatment program. The hydriatric rooms are in active use throughout the week with the exception of Sundays, mornings being devoted to men and afternoons to women. The scope of

this work is well illustrated by the number of treatments shown in a recent monthly report:—

Electric cabinet and shower treatments,	263
Steam cabinet and shower,	163
General massage,	34
Showers,	82
Olive oil rubs,	2
Tub baths,	4
<hr/>	
Total,	548

In addition to this, the continuous bathrooms have been practically in constant operation.

The importance of an X-ray equipment in institutions of this type is shown by the fact that between three and four hundred examinations have been made by the roentgenologist during the year.

Some reference should be made to the development of occupational therapy under the supervision of a competent instructor. This work has met with a degree of success which was hardly to be expected. Many of the patients have shown an unusual interest in occupations, notwithstanding their brief residence in the wards. The instruction given has included the making of rugs, mats, nets, weaving, basket making, chair repairing, needlework, embroidery, hemstitching, the marking of clothing, bookbinding, etc. Many patients have asked to be allowed to take up manual work of some kind, and not infrequently it has resulted in a marked improvement in their mental condition. The patients have been encouraged as far as possible in working in the wards.

Extensive repairs have been made throughout the building occupied by the psychopathic department, and the work of repainting was practically completed at the end of the year. Some alterations were made in the out-patient department, and the installation of a partition has rendered one additional room available. New window guards were installed on wards 2 and 3, an appropriation having been obtained for this purpose at the last session of the Legislature.

The expenditures for maintenance of the department during the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Salaries and wages,	\$78,860 36	\$921.8043	55.8633
Religious instruction,	—	—	—
Travel, transportation, and office expenses, . .	4,418 62	51.6496	3.1301
Food,	31,203 15	364.7358	22.1038
Clothing and materials,	1,310 43	15.3177	.9283
Furnishings, etc.,	5,597 44	65.4289	3.9651
Medical and general care,	4,133 76	48.3198	2.9283
Heat, light and power,	8,742 02	102.1861	6.1927
Farm and stable,	—	—	—
Grounds,	865 90	.5328	.1640
Repairs, ordinary,	6,173 38	72.1611	4.3731
Repairs and renewals,	447 49	5.2307	.3161
Total,	\$141,166 65	\$1,650.1069	100.0000

The per capita cost of maintenance for the year was \$1,065.11 or \$31.73 per week. Attention has already been called to the fact that the cost of maintenance of a psychopathic department is necessarily out of all proportion to the expenses involved in the operation of an institution conducted along ordinary State hospital lines. A much larger proportion of employees is necessary, a relatively larger staff is required, and a much more expensive type of care is given to the patients. The expenditures involved are more properly comparable with those of a general hospital. The standards of care generally are much higher, and should be, than those of the institutions designed exclusively for the care and custody of committable cases.

The psychopathic department has no fireproof record room. The room used for records is no longer sufficient in size, and it has become necessary for us to transfer many filing cases to the basement. We should have a fireproof room for this purpose, not only to ensure the protection of our records, but to comply with the laws of the State. Such a record room can be built at an approximate cost of \$2,000.

THE MEDICAL STAFF.

There have been the usual number of changes in personnel during the year.

Dr. William M. Dobson, who recently returned from the Army service, was appointed medical officer on Aug. 1, 1919.

Dr. John H. Travis, assistant medical officer, was granted leave of absence on Nov. 6, 1918, to enter the Army service, and returned to duty on Oct. 1, 1919, as medical officer.

Dr. Esther S. B. Woodward, assistant medical officer, resigned on Nov. 15, 1919, to go into the Illinois service as assistant to the State criminologist.

Dr. Richard H. Price, assistant medical officer, resigned on Aug. 15, 1919, to enter the New York State Hospital service.

Dr. Annette McIntire, assistant medical officer, resigned on July 10, 1919, to become assistant physician to Smith College.

Dr. Edwin R. Smith, assistant medical officer, resigned on Feb. 18, 1919, and served afterwards as an interne from May 1 to June 1, 1919.

Dr. Karl A. Menninger was appointed assistant medical officer on July 17, 1918, and resigned on June 1, 1919. He was granted leave of absence from Jan. 27 to May 5, 1919.

Dr. James T. Adams, appointed assistant medical officer on February 12, resigned on April 1, 1919.

Dr. Alice Johnson, appointed assistant medical officer on April 4, 1919, resigned Sept. 9, 1919, to accept a position as psychiatrist to the Philadelphia, Pa., courts.

Dr. Arabella J. Feldkamp was appointed assistant medical officer on June 22, 1919.

Dr. Mervyn H. Hirschfeld was appointed assistant medical officer June 30, 1919.

Dr. Benjamin L. Elliott was appointed assistant medical officer Sept. 8, 1919.

Dr. Abraham Myerson, who has been chief medical officer of the out-patient department since Oct. 1, 1917, resigned on Aug. 15, 1919, and was succeeded in this position by Dr. Percy L. Dodge, who was appointed on Oct. 1, 1919.

The following served as medical internes for the periods specified: —

Dr. Lloyd J. Thompson, May 26 to Dec. 1, 1919.
Dr. Newman Cohen, Aug. 15 to Dec. 1, 1919.
Dr. A. T. Mathers, Nov. 1 to Dec. 4, 1918.
Lieut. F. W. Seward, Oct. 15, 1918, to Jan. 6, 1919.
Dr. Lilla Ridout, Jan. 18 to Feb. 20, 1919.
Dr. Russell C. Doolittle, Jan. 4 to April 1, 1919.
Dr. James V. Klauder, Feb. 25 to April 25, 1919.
Dr. Marjorie Franklin, April 1 to May 15, 1919.
Dr. Edwin R. Smith, May 1 to June 1, 1919.
Dr. A. J. Morphy, Aug. 1 to Sept. 9, 1919.
Dr. Frank J. Gale, Nov. 10 to Dec. 1, 1919.

The following served as medical externes for the periods specified: —

Dr. Newman Cohen, Feb. 24 to Aug. 15, 1919.
Dr. L. A. Lurie, April 1 to May 1, 1919.
Dr. Smilie Blanton, July 23 to Aug. 9, 1919.
Dr. George W. Anderson, Aug. 18 to Oct. 25, 1919.
Dr. Clarence J. Moran, Nov. 1 to Dec. 1, 1919.

Miss Mary C. Jarrett, chief of social service, resigned on Feb. 28, 1919.

Miss Helen L. Myrick was appointed chief of social service on March 1, 1919.

Dr. Josephine C. Foster, chief psychologist, resigned on May 17, 1919. She was succeeded by Miss Elizabeth E. Lord, who was appointed on June 2, 1919, and resigned on Sept. 6, 1919. Dr. Ethel L. Cornell was appointed chief psychologist on Oct. 1, 1919. Miss Gladys Lowden was appointed assistant psychologist on Sept. 29, 1919. Miss Frances A. Bean, assistant psychologist, was appointed on Oct. 1, 1918, and resigned on April 1, 1919. Miss Margaret A. Davison served as assistant psychologist from May 19 to June 6, 1919.

Dr. Joseph Shohan, roentgenologist, resigned on Feb. 5, 1919. Dr. Whitman K. Coffin was appointed on Feb. 10, 1919, to succeed him.

Miss Ethel G. Mansfield, R.N., superintendent of nurses, resigned on July 14, 1919. Hereafter the general supervision of the nursing service at the psychopathic department will be under the direction of the superintendent of nurses at the Boston State Hospital. Miss Margaret J. Fallon, assistant superintendent of nurses, appointed on Oct. 13, 1919, to succeed Miss

Mansfield, will have immediate charge of the nursing service at the psychopathic department.

The following articles were published by members of the medical staff during the year: —

- Dr. Lawson G. Lowrey. An Analysis of the Accuracy of Psychopathic Hospital Diagnoses. *American Journal of Insanity*, Vol. LXXV, January, 1919.
- A Note on Southard's Order of Exclusion in Psychiatric Diagnoses. *Boston Medical and Surgical Journal*, Vol. CLXXX, May, 1919.
- Dr. Karl A. Menninger. Psychoses associated with Influenza: I. General Data. *Journal of the American Medical Association*, Vol. LXXII, Jan. 25, 1919.
- Influenza and Neurosyphilis. *Archives of Internal Medicine*, Vol. XXIV, July, 1919.
- Psychoses associated with Influenza: II. Specific Data. *Archives of Neurology and Psychiatry*, September, 1919.
- Dr. J. V. Klauder. Report of a Case of Bilateral Gumma of the Epididymis in a Paretic. *Urologic and Cutaneous Record*, Vol. XXIII, Nov. 8, 1919.
- Early Neurosyphilis Asymptomatica. *American Journal of Syphilis*, Vol. III, October, 1919.

Dr. Lawson G. Lowrey gave four lectures on the subject of "Social Psychiatry" for the Simmons College School of Social Work and two lectures before the school of psychiatric social work at Smith College. He also had charge of fourteen clinics given for the students of Harvard Medical School, at which place he served as instructor in neurology and psychiatry. Clinical lectures were also given by the professor of psychiatry at Tufts Medical School, assisted by Dr. Esther S. B. Woodward.

The readjustments made necessary in the reorganization of the psychopathic department as a result of the establishment of the Psychiatric Institute have imposed numerous additional duties upon the chief medical officer, Dr. Lawson G. Lowrey, and particularly upon the chief executive officer, Dr. Arthur P. Noyes. To them is due in a very large measure the credit for the successful operation of the department during the year.

Respectfully submitted,

JAMES V. MAY,

Superintendent.

VALUATION.

Nov. 30, 1919.

REAL ESTATE.

Land (235 acres),	\$508,500 00
Buildings,	2,714,296 39
	<hr/>
	\$3,222,796 39

PERSONAL PROPERTY.

Travel,	\$4,218 00
Food,	15,673 48
Clothing,	19,510 99
Furnishings,	140,750 82
Medical and general care,	7,763 47
Heat, light and power,	36,561 73
Farm and stable,	15,933 91
Grounds,	704 15
Repairs,	10,669 61
	<hr/>
	\$251,786 16

SUMMARY.

Real estate,	\$3,222,796 39
Personal property,	251,786 16
	<hr/>
	\$3,474,582 55

TREASURER'S REPORT.

To the Commissioner of Mental Diseases.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1919: —

CASH ACCOUNT.	
Balance Dec. 1, 1918,	\$1,194 89

Receipts.

Institution Receipts.

Board of inmates: —

Private,	\$23,480 06	
Reimbursements, insane,	27,579 43	
		\$51,059 49

Sales: —

Food,	\$824 86	
Clothing and materials,	106 13	
Furnishings and household supplies,	473 60	
Heat, light and power,	76 93	
Farm and stable: —		
Pigs and hogs,	\$162 55	
Sundries,	368 87	
		531 42
Repairs, ordinary,	92 40	
		2,105 34

Miscellaneous receipts: —

Interest on bank balances,	\$402 62	
Sundries,	226 15	
		628 77

	53,793 6
Refund, account coal, 1918 appropriation,	311 3

Receipts from Treasury of Commonwealth.

Maintenance appropriations: —

Balance of 1918,	\$40,471 65	
Advance money (amount on hand November 30),	45,000 00	
Approved schedules of 1919,	\$615,016 02	
Less returned,	131 34	
		614,884 68

Special appropriations,	700,356 8
Industries appropriation, 1918, October and November advances,	225,244 9
	114 2

Total,	\$981,015 8
------------------	-------------

<i>Payments.</i>		
To treasury of Commonwealth: —		
Institution receipts,	\$53,793 60	
Refund account coal, 1918,	311 30	
	<hr/>	\$54,104 90
Maintenance appropriations: —		
Balance November schedule, 1918,	\$41,780 76	
Eleven months' schedules, 1919,	614,884 68	
November advances,	28,763 48	
	<hr/>	685,428 92
Special appropriations: —		
Approved schedules,		225,244 99
Balance, Nov. 30, 1919: —		
In bank,	\$12,589 20	
In office,	3,647 32	
	<hr/>	16,236 52
Total,		<hr/> \$981,015 33

MAINTENANCE.		
Appropriation, current year,		\$686,700 00
Balance from previous year, brought forward,		1,886 75
		<hr/>
Total,		\$688,586 75
Expenses (as analyzed below),		669,097 56
		<hr/>
Balance reverting to treasury of Commonwealth,		\$19,489 19

<i>Analysis of Expenses.</i>		
Personal services: —		
James V. May, superintendent,	\$5,000 00	
Medical,	28,358 90	
Administration,	36,744 64	
Kitchen and dining-room service,	14,332 29	
Domestic,	23,041 61	
Ward service (male),	49,759 12	
Ward servicé (female),	57,022 98	
Industrial and educational department,	3,823 70	
Engineering department,	30,537 73	
Repairs,	13,808 91	
Farm,	8,714 68	
Stable, garage and grounds,	8,499 94	
	<hr/>	\$279,644 50
Religious instruction: —		
Catholic,	\$838 00	
Hebrew,	260 00	
Protestant,	318 00	
	<hr/>	1,416 00
Travel, transportation and office expenses: —		
Advertising,	\$350 91	
Automobile repairs and supplies,	5,567 44	
Postage,	806 37	
	<hr/>	
Amounts carried forward,	\$6,724 72	\$281,060 50

Amounts brought forward, \$6,724 72 \$281,060 50

Travel, transportation and office expenses — *Con.*

Printing and binding,	1,893 46
Printing annual report,	419 75
Stationery and office supplies,	4,440 93
Telephone and telegraph,	2,143 86
Travel,	1,335 42
Freight,	59 31

17,017 45

Food: —

Flour,	\$20,373 07
Cereals, rice, meal, etc.,	5,908 33
Bread, crackers, etc.,	1,213 02
Peas and beans (canned and dried),	1,457 83
Macaroni and spaghetti,	478 13
Potatoes,	6,863 47
Meat,	46,171 63
Fish (fresh, cured and canned),	8,139 89
Butter,	4,795 40
Butterine, etc.,	12,025 17
Peanut butter,	6 68
Cheese,	2,741 44
Coffee,	2,511 98
Coffee substitutes,	838 76
Tea,	1,829 12
Cocoa,	123 50
Milk (whole),	38,662 01
Milk (condensed, evaporated, etc.),	209 27
Eggs (fresh),	13,959 24
Sugar (cane),	5,971 21
Sugar (maple, etc.),	2 75
Fruit (fresh),	1,958 53
Fruit (dried and preserved),	3,984 35
Lard and substitutes,	1,345 79
Molasses and syrups,	964 44
Vegetables (fresh),	2,324 70
Vegetables (canned and dried),	1,735 47
Seasonings and condiments,	2,197 14
Yeast, baking powder, etc.,	671 36
Freight,	108 78

189,572 46

Clothing and materials: —

Boots, shoes and rubbers,	\$2,889 98
Clothing (outer),	10,362 60
Clothing (under),	6,186 20
Dry goods for clothing,	3,293 22
Hats and caps,	250 47
Leather and shoe findings,	631 21
Machinery for manufacturing,	345 14
Socks and smallwares,	1,873 13
Materials for manufacture,	237 61
Freight,	38 91
Industries,	56 74

26,165 21

Amount carried forward, \$513,815 62

Amount brought forward, \$513,815 62

Furnishings and household supplies:—

Beds, bedding, etc.,	\$19,240 33
Carpets, rugs, etc.,	1,264 93
Crockery, glassware, cutlery, etc.,	4,649 08
Dry goods and smallwares,	439 45
Electric lamps,	1,359 16
Fire hose and extinguishers,	254 40
Furniture, upholstery, etc.,	5,023 37
Kitchen and household wares,	4,612 98
Laundry supplies and materials,	3,698 93
Lavatory supplies and disinfectants,	3,379 72
Machinery for manufacturing,	70 92
Table linen, paper napkins, towels, etc.,	4,114 18
Sundries,	420 95
Freight,	60 00

48,588 40

Medical and general care:—

Books, periodicals, etc.,	\$256 92
Entertainments, games, etc.,	1,098 85
Funeral expenses,	259 40
Gratuities,	1,057 07
Ice and refrigeration,	390 23
Laboratory supplies and apparatus,	1,953 01
Manual training supplies,	33 88
Medicines (supplies and apparatus),	5,950 11
Medical attendance (extra),	1,047 69
Patients boarded out,	849 22
Return of runaways,	6 60
School books and supplies,	6 56
Sputum cups, etc.,	1 39
Tobacco, pipes, matches,	1,660 80
Water,	7,326 20
Freight,	12 25
Rent,	913 33

22,823 51

Heat, light and power:—

Coal (bituminous),	\$30,332 22
Coal (anthracite),	2,614 91
Wood,	1 10
Electricity,	119 90
Gas,	538 57
Oil,	707 63
Operating supplies for boilers and engines,	655 62
Freight,	14 42

34,984 47

Farm and stable:—

Bedding materials,	\$12 80
Blacksmithing and supplies,	722 80
Carriages, wagons and repairs,	571 61
Fencing materials,	209 16
Fertilizers,	1,402 40
Grain, etc.,	4,577 19
Harnesses and repairs,	555 13

Amounts carried forward, \$8,051 09 \$620,212 00

<i>Amounts brought forward,</i>	\$8,051 09	\$620,212 00
Farm and stable — <i>Con.</i>		
Labor (not on pay roll),	419 50	
Road work and materials,	10 00	
Spraying materials,	493 19	
Stable and barn supplies,	89 00	
Tools, implements, machines, etc.,	1,230 41	
Trees, vines, seeds, etc.,	996 36	
Veterinary services, supplies, etc.,	549 71	
Freight,	134 16	
		11,973 42
Grounds: —		
Labor (not on pay roll),	\$415 00	
Road work and materials,	165 22	
Tools, implements, machines, etc.,	201 47	
Trees, vines, shrubs, seeds, etc.,	352 33	
Freight,	11 88	
		1,145 90
Repairs, ordinary: —		
Brick,	\$48 88	
Cement, lime, crushed stone, etc.,	1,135 99	
Electrical work and supplies,	1,590 14	
Hardware, iron, steel, etc.,	2,723 94	
Labor (not on pay roll),	208 05	
Lumber, etc. (including finished products),	1,752 74	
Paint, oil, glass, etc.,	5,999 10	
Plumbing and supplies,	2,228 75	
Roofing and materials,	609 95	
Steam fittings and supplies,	2,254 77	
Tools, machines, etc.,	98 21	
Boilers, repairs,	803 38	
Dynamos, repairs,	228 88	
Engines, repairs,	172 50	
Freight,	73 32	
		19,928 60
Repairs and renewals: —		
Hot-water filter, 1918 appropriation,	\$780 00	
Bridge over Stony Brook,	248 22	
One 16-inch Davidson steam pump,	1,375 00	
Recommendations of C. H. Tenney: —		
Main institution,	1,125 65	
Psychopathic department,	1,720 32	
Repairing steam main,	10,588 45	
		15,837 64
Total expenses for maintenance,		\$669,097 56
SPECIAL APPROPRIATIONS.		
Balance Dec. 1, 1918,		\$343,810 63
Appropriations for fiscal year,		290,000 00
Total,		\$633,810 63
Expended during the year,	\$225,244 99	
Reverting to treasury of Commonwealth,	28 91	
		225,273 90
Balance Nov. 30, 1919,		\$408,536 73

RESOURCES AND LIABILITIES.

<i>Resources.</i>		
Cash on hand,	\$16,236	52
November cash vouchers (paid from advance money), account of maintenance,	28,763	48
Due from treasury of Commonwealth from available appropriation account November, 1919, schedule,	9,212	88
	<hr/>	\$54,212 88
<i>Liabilities.</i>		
Schedule of November bills,		\$54,212 88

PER CAPITA.

During the year the average number of inmates has been 1,710.63.
Total cost for maintenance, \$669,097.56.
Equal to a weekly per capita cost of \$7.5219.
Receipt from sales, \$2,105.34.
Equal to a weekly per capita of \$0.0236.
All other institution receipts, \$51,688.26.
Equal to a weekly per capita of \$0.581.

Respectfully submitted,

ADELINE J. LEARY,
Acting Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

ALONZO B. COOK,
Auditor.

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DEC 5 1920

STATISTICAL TABLES

AS ADOPTED BY AMERICAN MEDICO-PSYCHOLOGICAL
ASSOCIATION

PRESCRIBED BY MASSACHUSETTS COMMISSION ON MENTAL DISEASES

STATISTICAL TABLES.

TABLE 1. — *General Information.*

1. Date of opening as an institution for the insane: Dec. 11, 1839.			
2. Type of institution: State.			
3. Hospital plant:—			
Real estate, including buildings,	\$3,222,796	39	
Personal property,	251,786	16	
Total,	\$3,474,582	55	
Total acreage of hospital property, 234.91.			
Acreage under cultivation during previous year, about 60.			
4. Medical service:—			
	Men.	Women.	Total.
Superintendent,	1	—	1
Assistant superintendent,	1	—	1
Assistant physicians,	9	4	13
Pathologist,	1	—	1
Chief executive officer, psychopathic department,	1	—	1
Chief medical officer, psychopathic department,	1	—	1
Executive officer, psychopathic department,	1	—	1
Assistant executive officer, psychopathic department,	1	—	1
Medical interne,	1	—	1
Chief medical officer, out-patient service, psychopathic department,	1	—	1
Total physicians,	18	4	22
Dentist,	1	—	1
5. Employees on pay roll:—			
	Men.	Women.	Total.
Graduate nurses,	—	30	30
Other nurses and attendants,	85	91	176
All other employees,	101	107	208
Total employees,	186	228	414
6. Patients employed in industrial classes or in general hospital work on date of report,			
	276	254	530
7. Patients in institution on date of report (excluding paroles),			
	760	963	1,723

TABLE 2. — *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Insane Patient Population Oct. 1, 1918, to Sept. 30, 1919.*

	Males.	Females.	Totals.
1. Insane patients on books of institution at beginning of institution year,	844	1,075	1,919
Admissions during year: —			
(a) First admissions,	881	818	1,699
(b) Readmissions,	235	204	439
Total admissions,	1,116	1,022	2,138
(c) Transfers from other institutions for the insane,	5	6	11
2. Total received during year,	1,121	1,028	2,149
3. Total under treatment during year,	1,965	2,103	4,068
Discharged from books during year: —			
(a) As recovered,	58	49	107
(b) As improved,	155	115	270
(c) As unimproved,	493	389	882
(d) As not insane,	204	226	430
(e) Transferred to other institutions for the insane,	6	9	15
(f) Died during year,	172	153	325
4. Total discharged and died during year,	1,088	941	2,029
5. Insane patients remaining on books of institution at end of institution year,	877	1,162	2,039
<i>Supplementary Data.</i>			
6. Average daily number of insane patients actually in institution during year,	632.55	954.86	1,587.41
7. Average daily number of other insane patients on books but away from institution on —			
Visit,	118.64	150.26	268.90
Escape,	10.92	2.39	13.31
Boarded out,	—	8.08	8.08
8. Insane voluntary patients admitted during year,	207	145	352
9. Drug cases,	—	—	—
10. Inebriates,	—	—	—
11. Neurological cases,	—	—	—
12. Epileptics (not feeble-minded),	—	—	—
13. Feeble-minded cases (not epileptics),	—	—	—
14. Feeble-minded epileptics,	—	—	—
15. All other cases,	—	—	—
16. Persons given advice or treatment in out-patient department during year,	928	1,184	2,112

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions for the Year ending Sept. 30, 1919.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
United States,	492	467	959	233	241	474	216	217	433
Africa,	—	1	1	—	—	—	—	—	—
Asia, ¹	2	—	2	2	2	4	—	—	—
Australia,	1	—	1	—	—	—	—	—	—
Austria,	5	6	11	8	7	15	10	7	17
Belgium,	1	2	3	2	1	3	2	2	4
Bohemia,	1	1	2	2	2	4	—	—	—
Canada, ²	62	82	144	73	82	155	100	100	200
Central America,	—	—	—	—	—	—	—	—	—
China,	3	—	3	3	4	7	—	—	—
Cuba,	—	—	—	—	—	—	—	—	—
Denmark,	—	—	—	1	—	1	—	—	—
England,	22	23	45	34	35	69	36	34	70
Europe, ¹	—	—	—	—	—	—	—	—	—
Finland,	8	1	9	8	8	16	1	1	2
France,	4	1	5	4	8	12	3	2	5
Germany,	13	2	15	32	33	65	17	19	36
Greece,	14	1	15	14	13	27	1	1	2
Hawaii,	—	1	1	—	—	—	—	1	1
Holland,	1	—	1	2	2	4	—	—	—
Hungary,	1	—	1	1	1	2	—	—	—
India,	—	—	—	—	—	—	—	—	—
Ireland,	74	110	184	185	184	369	213	218	431
Italy,	49	39	88	50	51	101	48	48	96
Japan,	—	—	—	—	—	—	—	—	—
Mexico,	—	—	—	—	—	—	—	—	—
Norway,	4	2	6	4	4	8	3	2	5
Philippine Islands,	—	—	—	—	—	—	—	—	—
Poland,	19	8	27	19	18	37	9	9	18
Porto Rico,	—	—	—	—	—	—	—	—	—
Portugal,	1	—	1	1	1	2	1	1	2
Roumania,	—	1	1	—	—	—	1	1	2
Russia,	58	45	103	73	68	141	61	58	119
Scotland,	5	4	9	22	10	32	15	15	30
South America,	—	—	—	—	—	—	—	—	—
Spain,	2	—	2	2	2	4	1	1	2
Sweden,	12	8	20	16	2	18	13	12	25
Switzerland,	—	1	1	1	1	2	1	1	2
Turkey in Asia,	2	2	4	2	2	4	2	2	4
Turkey in Europe,	6	—	6	6	6	12	—	—	—
Wales,	—	—	—	—	1	1	—	—	—
West Indies, ³	4	4	8	6	5	11	5	4	9
Other countries,	5	1	6	8	6	14	3	3	6
Unascertained,	10	5	15	67	81	148	56	59	115
Total,	881	818	1,699	881	881	1,762	818	818	1,636

¹ Not otherwise specified. ² Includes Newfoundland. ³ Except Cuba and Porto Rico.

TABLE 5. — *Citizenship of First Admissions for the Year ending Sept. 30, 1919.*

	Males.	Females.	Totals.
Citizens by birth,	494	468	962
Citizens by naturalization,	92	28	120
Aliens,	281	317	598
Citizenship unascertained,	14	5	19
Total,	881	818	1,699

TABLE 6.—*Psychoses of First Admissions for the Year ending Sept. 30, 1919.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	10			
2. Senile, total,	19	43	62			
(a) Simple deterioration,	13	25	38			
(b) Presbyophrenic type,	1	4	5			
(c) Delirious and confused states,	3	3	6			
(d) Depressed and agitated states in addition to deterioration,	—	1	1			
(e) Paranoid states in addition to deterioration,	2	10	12			
(f) Presenile types,	—	—	—			
3. With cerebral arteriosclerosis,	61	27	88			
4. General paralysis,	95	22	117			
5. With cerebral syphilis,	19	6	25			
6. With Huntington's chorea,	—	4	4			
7. With brain tumor,	3	—	3			
8. With other brain or nervous diseases, total,	9	8	17			
Cerebral embolism,	—	1	1			
Paralysis agitans,	1	—	1			
Meningitis, tuberculous or other forms,	2	—	2			
Multiple sclerosis,	—	—	—			
Tabes,	2	—	2			
Acute chorea,	—	—	—			
Other conditions,	4	7	11			
9. Alcoholic, total,	89	29	118			
(a) Pathological intoxication,	—	—	—			
(b) Delirium tremens,	25	2	27			
(c) Acute hallucinosis,	36	10	46			
(d) Acute paranoid type,	1	—	1			
(e) Korsakow's psychosis,	4	3	7			
(f) Chronic hallucinosis,	9	2	11			
(g) Chronic paranoid type,	4	2	6			
(h) Alcoholic deterioration,	10	9	19			
(i) Other types, acute or chronic,	—	1	1			
10. Due to drugs and other exogenous toxins, total,	—	—	—			
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	—	—	—			
(b) Metals, as lead, arsenic, etc.,	—	—	—			
(c) Gases,	—	—	—			
(d) Other exogenous toxins,	—	—	—			
11. With pellagra,	—	1	1			
12. With other somatic diseases, total,	15	25	40			
(a) Delirium with infectious diseases,	9	13	22			
(b) Post-infectious psychoses,	2	5	7			
(c) Exhaustion delirium,	1	1	2			
(d) Delirium of unknown origin,	—	1	1			
(e) Diseases of the ductless glands,	—	1	1			
(f) Cardiorenal disease,	2	2	4			
(g) Other diseases or conditions,	1	2	3			
13. Manic-depressive, total,	39	76	115			
(a) Manic type,	17	20	37			
(b) Depressive type,	18	44	62			
(c) Stupor,	—	—	—			
(d) Mixed type,	4	12	16			
(e) Circular type,	—	—	—			
14. Involution melancholia,	7	16	23			
15. Dementia præcox, total,	203	215	418			
(a) Paranoid type,	90	97	187			
(b) Katatonic type,	35	43	78			
(c) Hebephrenic type,	67	70	137			
(d) Simple type,	11	5	16			
16. Paranoia and paranoic conditions,	22	27	49			

TABLE 6.—*Psychoses of First Admissions for the Year ending Sept. 30, 1919*
— Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
17. Epileptic, total,				21	19	40
(a) Deterioration,	10	10	20			
(b) Clouded states,	10	8	18			
(c) Other conditions,	1	1	2			
18. Psychoneuroses and neuroses, total,				19	36	55
(a) Hysterical type,	10	18	28			
(b) Psychasthenic type,	4	6	10			
(c) Neurasthenic type,	4	7	11			
(d) Anxiety neuroses,	1	5	6			
19. With constitutional psychopathic inferiority,				—	3	3
20. With mental deficiency,				5	8	13
21. Undiagnosed psychoses,				66	68	134
22. Not insane, total,				162	165	327
(a) Epilepsy without psychosis,	10	8	18			
(b) Alcoholism without psychosis,	7	5	12			
(c) Drug addiction without psychosis,	—	1	1			
(d) Constitutional psychopathic inferiority without psychosis,	39	51	90			
(e) Mental deficiency without psychosis,	63	57	120			
(f) Others,	43	43	86			
Acute chorea,	—	1	1			
Infectious chorea,	—	1	1			
Larceny,	—	1	1			
Lying and larceny,	—	1	1			
Senile,	—	1	1			
Laryngitis,	—	1	1			
Conduct disorder,	8	9	17			
Neurosyphilis,	4	3	7			
Syphilis,	—	1	1			
Dizziness and headache,	1	—	1			
Tabes,	3	1	4			
Paralysis agitans,	1	—	1			
Hysteria,	1	1	2			
Psychoneurosis,	1	1	2			
Psychasthenia,	1	—	1			
Delinquent,	1	1	2			
Depression,	3	8	11			
Organic brain disease,	2	1	3			
Cerebral arteriosclerosis,	1	—	1			
Hemiplegia,	1	—	1			
Question of mental defect,	1	—	1			
Suicidal attempt,	1	1	2			
Suicidal threat,	—	1	1			
Myasthenia gravis,	1	—	1			
Arthritis,	1	—	1			
Subnormal,	—	1	1			
Question of abnormality,	1	—	1			
Nervous and depressed,	1	—	1			
Vascular, neurosyphilis,	1	—	1			
Pneumonia with delirium,	1	—	1			
Influenza,	2	—	2			
Post-influenza depression,	—	1	1			
Traumatic neurosis,	2	—	2			
Psychoneurosis, cardiac disease,	1	—	1			
Diabetes,	1	—	1			
Tinnitus,	—	1	1			
Multiple sclerosis,	—	1	1			
Question of early dementia præcox,	—	1	1			
Undiagnosed, hysteria or epilepsy,	—	1	1			
Undiagnosed, (?) dementia præcox, (?) psychoneurosis,	—	1	1			
Undiagnosed,	—	2	2			
Undiagnosed, deteriorated,	1	—	1			
• No diagnosis,				18	19	37
Total,				881	818	1,699

Scotch,	.	.	.	.	.	.	.	.	.	1	1	-	-	-	-	-	-	-	-	1	2	15	7
Slavonic, ³	.	.	.	.	.	.	.	.	.	1	7	-	-	-	-	-	-	-	-	-	8	3	11
Spanish,	.	.	.	.	.	.	.	.	.	1	1	-	-	-	-	-	-	-	-	1	1	3	1
Spanish-American,	.	.	.	.	.	.	.	.	.	1	-	-	-	-	-	-	-	-	-	-	1	-	1
Syrian,	.	.	.	.	.	.	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkish,	.	.	.	.	.	.	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Welsh,	.	.	.	.	.	.	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Indian, ⁴	.	.	.	.	.	.	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other specific races,	.	.	.	.	.	.	.	.	.	3	1	4	1	1	4	5	1	-	-	1	1	10	18
Mixed,	.	.	.	.	.	.	.	.	.	3	1	4	1	1	2	3	4	1	-	6	8	5	11
Race unascertained,	.	.	.	.	.	.	.	.	.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total,	9	8	17	89	29	118	1	1	1	15	25	40	39	76	115	203	215	418

¹ Includes "North" and "South."

² Norwegians, Danes and Swedes.

³ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

⁴ Except Cuban.

TABLE 8. — Age of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	10	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
2. Senile,	19	43	62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	61	27	88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis,	95	22	117	1	1	2	—	—	—	—	—	—	1	3	4	11	2	13	21	1	22	25	6	31
5. With cerebral syphilis,	19	6	25	1	1	2	—	—	—	—	—	—	1	1	2	3	2	5	3	1	4	1	1	2
6. With Huntington's chorea,	—	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	3	4	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	9	8	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	89	29	118	—	—	—	—	—	—	—	—	—	12	1	13	15	3	18	12	5	17	15	8	23
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	15	25	40	—	—	—	2	2	4	1	3	4	1	3	4	2	3	5	2	4	6	1	4	5
13. Manic-depressive,	39	76	115	—	—	—	2	2	4	5	7	12	3	10	13	4	8	12	7	14	21	5	10	15
14. Involution melancholia,	7	16	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox,	203	215	418	3	3	6	31	14	45	51	60	111	43	45	88	29	38	67	23	28	51	10	16	26
16. Paranoia or paranoid conditions,	22	27	49	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—	4	2	6	9	3	12
17. Epileptic psychoses,	21	19	40	—	—	—	1	3	4	6	3	9	1	2	3	4	3	7	2	2	4	4	2	6
18. Psychoneuroses and neuroses,	19	36	55	1	—	1	—	—	—	—	—	—	3	6	9	5	1	1	2	5	7	2	2	4
19. With constitutional psychopathic inferiority,	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	5	8	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses,	66	68	134	2	—	2	6	7	13	7	8	15	7	10	17	10	9	19	9	10	19	5	6	11
22. Not insane,	162	327	489	6	24	30	32	68	100	24	28	52	10	11	21	25	17	42	16	12	28	10	7	17
23. No diagnosis,	18	19	37	—	1	1	2	1	3	2	3	5	2	3	5	3	2	5	4	1	5	2	1	3
Total,	881	818	1,699	26	8	34	77	99	176	102	118	220	85	96	181	114	99	213	108	90	198	90	73	163

TABLE 8. — *Age of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919 — Concluded.*

PSYCHOSES.	YEARS.											
	45-49.			50-54.			55-59.			60-64.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	1	2	4	—	4	—	—	—	1	5	6
2. Senile,	1	1	2	2	3	5	11	3	14	3	1	4
3. With cerebral arteriosclerosis,	20	5	25	8	2	10	7	2	9	11	—	11
4. General paralysis,	2	1	3	1	—	1	5	1	6	1	—	1
5. With cerebral syphilis,	—	1	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	3	2	5	1	1	2	2	—	2	—	—	—
7. With brain tumor,	13	10	23	10	—	10	4	—	4	3	1	4
8. With other brain or nervous diseases,	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	1	2	3	1	3	4	1	—	1	3	1	4
12. With other somatic diseases,	5	4	9	2	7	9	3	5	8	1	6	7
13. Manic-depressive,	7	3	10	3	2	5	2	3	5	3	1	4
14. Involution melancholia,	3	6	9	2	8	10	1	3	4	1	2	3
15. Dementia praecox,	1	5	6	1	1	2	1	1	2	1	2	3
16. Paranoia or paranoic conditions,	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic psychoses,	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	1	1	—	1	1	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	9	10	19	6	3	9	3	1	4	2	2	4
20. With mental deficiency,	10	7	17	5	4	9	6	3	9	4	—	4
21. Undiagnosed psychoses,	1	3	4	2	3	5	—	—	—	—	—	—
22. Not insane,	76	72	148	52	44	96	47	25	72	33	22	55
23. No diagnosis,	—	—	—	—	—	—	—	—	—	—	—	—
Total,	36	52	88	35	20	55	35	20	55	36	52	88

PSYCHOSES.

UNASCERTAINED.

70 AND OVER.

65-69.

60-64.

55-59.

50-54.

45-49.

Males.

Females.

Totals.

Males.

Females.

Totals.

TABLE 9. — Degree of Education of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919.

PSYCHOSES.	TOTAL.			ILLITERATE.			READS AND WRITES.			COMMON SCHOOL.			HIGH SCHOOL.			COLLEGE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	10	2	1	3	5	10	15	8	1	9	—	—	—	1	—	1	1	—	1
2. Senile,	19	43	62	1	5	6	13	4	17	9	19	28	—	—	—	2	—	2	2	—	4
3. With cerebral arteriosclerosis,	61	27	88	1	1	2	4	4	8	36	17	53	5	1	6	4	1	5	1	1	3
4. General paralysis,	95	22	117	3	1	4	4	1	5	67	17	84	11	—	12	8	—	2	2	—	4
5. With cerebral syphilis,	19	6	25	5	—	5	—	—	—	13	4	17	—	—	—	—	—	—	1	—	1
6. With Huntington's chorea,	—	4	4	—	—	—	—	—	—	—	4	4	—	—	—	—	—	—	—	—	—
7. With brain tumor,	3	—	3	—	—	—	—	—	—	2	—	2	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases,	9	8	17	—	1	1	1	1	2	5	6	11	1	—	1	2	—	—	—	—	—
9. Alcoholic,	89	29	118	5	1	6	15	2	17	60	23	83	3	—	6	—	—	—	6	—	6
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	15	25	40	—	2	2	1	—	1	11	19	30	1	—	3	1	—	1	2	—	3
13. Manic-depressive,	39	76	115	—	4	4	1	2	3	27	55	82	6	—	18	4	—	1	1	—	2
14. Involution melancholia,	7	16	23	—	1	1	—	3	3	6	12	18	1	—	2	4	2	—	1	—	3
15. Dementia precox,	203	215	418	6	6	12	16	9	25	135	155	290	25	29	54	7	6	13	14	10	24
16. Paranoia or paranoid conditions,	22	27	49	—	—	—	1	2	3	19	23	42	1	1	2	1	1	1	1	—	3
17. Epileptic psychoses,	21	19	40	—	—	—	1	1	2	17	15	32	—	—	2	—	—	—	2	—	—
18. Psychoneuroses and neuroses,	19	36	55	—	2	2	1	4	5	16	23	39	2	5	7	—	2	2	—	—	—
19. With constitutional psychopathic inferiority,	—	3	3	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
20. With mental deficiency,	5	8	13	3	1	4	7	—	—	2	7	9	—	—	—	—	—	—	—	—	—
21. Undiagnosed psychoses,	66	68	134	5	2	7	7	6	13	43	46	89	3	8	11	—	1	1	8	5	13
22. Not insane,	162	165	327	10	4	14	12	10	22	120	141	261	9	4	13	9	2	11	2	4	6
23. No diagnosis,	18	19	37	2	1	3	3	—	3	10	13	23	—	—	4	1	—	1	2	1	3
Total,	881	818	1,699	42	32	74	81	56	137	606	602	1,208	69	80	149	38	15	53	45	33	78

TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	10	9	1	10	—	—	—	—	—	—
2. Senile,	19	43	62	16	43	59	2	—	2	1	—	1
3. With cerebral arteriosclerosis,	61	27	88	61	27	88	—	—	—	—	—	—
4. General paralysis,	95	22	117	94	22	116	—	—	—	1	—	1
5. With cerebral syphilis,	19	6	25	19	6	25	—	—	—	—	—	—
6. With Huntington's chorea,	—	4	4	—	4	4	—	—	—	—	—	—
7. With brain-tumor,	3	—	3	3	—	3	—	—	—	—	—	—
8. With other brain or nervous diseases,	9	8	17	8	8	16	1	—	1	—	—	—
9. Alcoholic,	89	29	118	88	29	117	1	—	1	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	1	1	—	1	1	—	—	—	—	—	—
12. With other somatic diseases,	15	25	40	15	24	39	—	—	—	—	—	—
13. Manic-depressive,	39	76	115	39	76	115	—	—	—	1	—	1
14. Involution melancholia,	7	16	23	7	16	23	—	—	—	—	—	—
15. Dementia praecox,	203	215	418	196	210	406	6	5	11	1	—	1
16. Paranoia or paranoid conditions,	22	27	49	22	27	49	—	—	—	—	—	—
17. Epileptic psychoses,	21	19	40	21	19	40	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	19	36	55	19	36	55	—	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	3	3	—	3	3	—	—	—	—	—	—
20. With mental deficiency,	5	8	13	5	8	13	—	—	—	—	—	—
21. Undiagnosed psychoses,	66	68	134	66	68	134	—	—	—	—	—	—
22. Not insane,	162	165	327	158	165	323	4	—	4	—	—	—
23. No diagnosis,	18	19	37	18	19	37	—	—	—	—	—	—
Total,	881	818	1,699	864	812	1,676	14	5	19	3	1	4

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919.*

PSYCHOSES.	TOTAL.			DEPENDENT.			MARGINAL.			COMFORTABLE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	1	10	7	13	20	8	1	9	1	5	6	2	—	2
2. Senile,	19	43	62	16	5	21	9	25	34	7	7	12	10	—	10
3. With cerebral arteriosclerosis,	61	27	88	3	4	7	38	17	55	12	5	17	2	—	2
4. General paralysis,	95	22	117	3	—	3	69	15	84	12	3	15	2	—	2
5. With cerebral syphilis,	19	6	25	1	—	1	17	5	22	—	1	1	—	—	—
6. With Huntington's chorea,	—	4	4	—	—	—	—	4	4	—	—	—	—	—	—
7. With brain tumor,	3	—	3	—	—	—	2	—	2	—	—	—	1	—	1
8. With other brain or nervous diseases,	9	8	17	—	1	1	5	7	12	1	—	—	3	—	3
9. Alcoholic,	89	29	118	1	—	1	75	27	102	4	2	6	9	—	9
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	15	25	40	—	2	2	14	19	33	—	4	4	1	—	1
13. Manic-depressive,	39	76	115	—	2	2	30	65	95	5	8	13	4	—	4
14. Involution melancholia,	7	16	23	—	—	—	4	14	18	2	2	4	1	1	2
15. Dementia precox,	203	215	418	8	14	22	168	186	354	10	15	25	17	—	17
16. Paranoia or paranoid conditions,	22	27	49	—	3	3	17	17	34	3	7	10	2	—	2
17. Epileptic psychoses,	21	19	40	1	1	2	16	33	49	1	3	4	2	—	2
18. Psychoneuroses and neuroses,	19	36	55	—	1	1	17	32	49	2	3	5	—	—	—
19. With constitutional psychopathic inferiority,	—	3	3	—	2	2	—	1	1	—	—	—	—	—	—
20. With mental deficiency,	5	8	13	1	2	3	4	6	10	—	—	—	—	—	—
21. Undiagnosed psychoses,	66	68	134	1	—	1	54	66	120	6	2	8	5	—	5
22. Not insane,	162	165	327	3	14	17	140	145	285	9	6	15	10	—	10
23. No diagnosis,	18	19	37	—	—	—	15	16	31	2	3	5	1	—	1
Total,	881	818	1,699	42	64	106	703	684	1,387	66	69	135	70	1	71

TABLE 12. — *Use of Alcohol by First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919.*

PSYCHOSES.	TOTAL.		ABSTINENT.		TEMPERATE.		INTERTEMPERATE.		UNASCERTAINED.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1. Traumatic,	9	1	5	1	2	—	2	—	—	—
2. Senile,	19	43	16	28	7	3	1	4	2	8
3. With cerebral arteriosclerosis,	61	27	33	18	28	7	15	1	2	3
4. General paralysis,	95	22	33	11	45	9	13	1	4	1
5. With cerebral syphilis,	19	6	5	1	8	2	6	3	—	5
6. With Huntington's chorea,	—	4	—	4	—	—	—	—	—	—
7. With brain tumor,	3	—	1	—	2	—	—	—	—	—
8. With other brain or nervous diseases,	9	8	3	7	3	1	3	29	—	—
9. Alcoholic,	89	29	—	—	—	—	89	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	3	—	—
11. With pellagra,	—	1	—	—	—	—	—	118	—	—
12. With other somatic diseases,	15	25	2	21	9	4	4	—	—	1
13. Manic-depressive,	39	76	20	64	13	9	6	—	—	2
14. Involution melancholia,	7	16	2	12	4	4	—	1	—	—
15. Dementia præcox,	203	215	103	184	64	23	26	—	1	1
16. Paranoia or paranoid conditions,	22	27	11	19	7	3	4	3	10	6
17. Epileptic psychoses,	21	19	12	17	3	2	6	—	—	2
18. Psychoneuroses and neuroses,	19	36	9	34	10	1	—	—	—	1
19. With constitutional psychopathic inferiority,	—	3	—	2	—	—	—	—	—	1
20. With mental deficiency,	5	13	1	5	2	1	—	2	1	1
21. Undiagnosed psychoses,	66	68	27	54	25	7	11	4	3	3
22. Not insane,	162	327	91	126	41	21	27	13	40	8
23. No diagnosis,	18	19	7	13	7	5	4	—	—	1
Total,	881	818	357	621	280	102	218	63	26	32
		1,699		978			382	281		58

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919.*

PSYCHOSES.	TOTAL.		SINGLE.		MARRIED.		WIDOWED.		SEPARATED.		DIVORCED.		UNASCERTAINED.	
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.
1. Traumatic,	9	1	10	6	1	7	2	—	2	—	—	—	1	—
2. Senile,	19	43	62	2	9	11	8	28	14	—	—	—	1	—
3. With cerebral arteriosclerosis,	61	27	88	9	7	16	34	17	42	—	—	1	—	1
4. General paralysis,	95	22	117	26	7	33	61	4	68	—	—	1	4	—
5. With cerebral syphilis,	19	6	25	8	—	8	10	1	14	—	—	—	—	—
6. With Huntington's chorea,	—	4	4	—	—	—	—	1	—	—	—	—	—	—
7. With brain tumor,	3	—	3	—	—	—	2	—	2	—	—	—	—	—
8. With other brain or nervous diseases,	9	8	17	1	1	2	6	4	9	—	—	—	—	—
9. Alcoholic,	89	29	118	51	4	55	32	5	51	1	1	2	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	1	1	—	—	—	—	1	—	—	—	—	—	—
12. With other somatic diseases,	15	25	40	7	12	19	7	9	16	—	—	—	—	—
13. Manic-depressive,	39	76	115	20	24	44	16	42	58	—	—	—	—	—
14. Involution melancholia,	7	16	23	2	3	5	5	10	15	—	—	—	—	—
15. Dementia precox,	203	215	418	157	123	280	32	75	107	1	1	2	6	7
16. Paranoia or paranoid conditions,	22	27	49	4	9	13	15	13	28	—	—	—	1	—
17. Epileptic psychoses,	21	19	40	18	8	26	3	9	12	—	—	—	—	—
18. Psychoneuroses and neuroses,	19	36	55	12	16	28	7	16	23	—	—	—	—	—
19. With constitutional psychopathic inferiority,	—	3	3	—	2	2	—	3	3	—	—	—	—	—
20. With mental deficiency,	5	8	13	3	3	6	1	4	5	—	—	—	—	—
21. Undiagnosed psychoses,	66	68	134	31	26	57	25	35	60	—	—	—	4	3
22. Not insane,	162	165	327	98	107	205	49	48	97	1	1	2	3	—
23. No diagnosis,	18	19	37	5	5	10	12	7	24	—	—	—	1	—
Total,	881	818	1,699	460	367	827	327	61	651	2	2	4	21	11
								105		9	9	19		32
								163						

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1919.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	-	-	-	-	-	-
2. Senile, total,	2	-	2	2	3	5
(a) Simple deterioration,	-	1	1	-	-	-
(b) Presbyophrenic type,	-	1	1	-	-	-
(c) Delirious and confused states,	-	1	1	-	-	-
(d) Depressed and agitated states in addition to deterioration,	-	1	1	-	-	-
(e) Paranoid states in addition to deterioration,	-	1	1	-	-	-
(f) Presenile types,	-	-	-	-	-	-
3. With cerebral arteriosclerosis,	7	6	13	7	6	13
4. General paralysis,	22	1	23	22	1	23
5. With cerebral syphilis,	4	1	5	4	1	5
6. With Huntington's chorea,	-	-	-	-	-	-
7. With brain tumor,	-	-	-	-	-	-
8. With other brain or nervous diseases, total,	-	1	1	-	1	1
Cerebral embolism,	-	-	-	-	-	-
Paralysis agitans,	-	-	-	-	-	-
Meningitis, tuberculous or other forms,	-	-	-	-	-	-
Multiple sclerosis,	-	-	-	-	-	-
Tabes,	-	-	-	-	-	-
Acute chorea,	-	-	-	-	-	-
Organic brain disease,	-	1	1	-	-	-
9. Alcoholic, total,	19	8	27	19	8	27
(a) Pathological intoxication,	1	1	2	-	-	-
(b) Delirium tremens,	6	2	8	-	-	-
(c) Acute hallucinosis,	2	-	2	-	-	-
(d) Acute paranoid type,	-	2	2	-	-	-
(e) Korsakow's psychosis,	5	-	5	-	-	-
(f) Chronic hallucinosis,	1	1	2	-	-	-
(g) Chronic paranoid type,	3	2	5	-	-	-
(h) Alcoholic deterioration,	1	-	1	-	-	-
(i) Other types, acute or chronic,	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins, total,	-	1	1	-	1	1
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	-	1	1	-	-	-
(b) Metals, as lead, arsenic, etc.,	-	-	-	-	-	-
(c) Gases,	-	-	-	-	-	-
(d) Other exogenous toxins,	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-
12. With other somatic diseases, total,	2	1	3	2	1	3
(a) Delirium with infectious diseases,	-	1	1	-	-	-
(b) Post-infectious psychoses,	2	-	2	-	-	-
(c) Exhaustion delirium,	-	-	-	-	-	-
(d) Delirium of unknown origin,	-	-	-	-	-	-
(e) Diseases of the ductless glands,	-	-	-	-	-	-
(f) Cardiorenal disease,	-	-	-	-	-	-
(g) Other diseases or conditions,	-	-	-	-	-	-
13. Manic-depressive, total,	36	48	84	36	48	84
(a) Manic type,	14	20	34	-	-	-
(b) Depressive type,	17	24	41	-	-	-
(c) Stupor,	-	-	-	-	-	-
(d) Mixed type,	5	4	9	-	-	-
(e) Circular type,	-	-	-	-	-	-
14. Involution melancholia,	-	11	11	-	11	11

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1919*
— Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total,				75	61	136
(a) Paranoid type,	38	24	62			
(b) Katatonic type,	3	3	6			
(c) Hebephrenic type,	32	28	60			
(d) Simple type,	2	6	8			
16. Paranoia and paranoic conditions,				5	19	24
17. Epileptic, total,				8	5	13
(a) Deterioration,	3	2	5			
(b) Clouded states,	5	2	7			
(c) Other conditions,	—	1	1			
18. Psychoneuroses and neuroses, total,				6	4	10
(a) Hysterical type,	—	1	1			
(b) Psychasthenic type,	4	2	6			
(c) Neurasthenic type,	1	—	1			
(d) Anxiety neuroses,	1	1	2			
19. With constitutional psychopathic inferiority,				1	2	3
20. With mental deficiency,				1	2	3
21. Undiagnosed psychoses,				19	10	29
22. Not insane, total,				23	19	42
(a) Epilepsy without psychosis,	1	1	2			
(b) Alcoholism without psychosis,	1	1	2			
(c) Drug addiction without psychosis,	—	—	—			
(d) Constitutional psychopathic inferiority with- out psychosis,	10	4	14			
(e) Mental deficiency without psychosis,	1	9	10			
(f) Others,	10	4	14			
23. No diagnosis,				5	1	6
Total,				235	204	439

TABLE 15. — Discharges of Patients classified with Reference to Principal Psychoses and Condition on Discharge for the Year ending Sept. 30, 1919.

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			NOT INSANE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	6	17	23	1	—	1	2	—	2	1	—	1	2	—	2
2. Senile,	9	8	17	—	—	—	1	3	4	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	24	16	40	—	1	1	6	2	8	18	13	31	—	1	1
4. General paralysis,	81	12	93	—	—	—	10	2	12	71	9	80	—	1	1
5. With cerebral syphilis,	16	8	24	—	—	—	2	1	3	14	7	21	—	—	—
6. With Huntington's chorea,	—	2	2	—	—	—	—	1	1	—	—	—	—	—	—
7. With brain tumor,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	8	6	14	—	—	—	1	1	2	1	1	2	—	—	—
9. Alcoholic,	101	29	130	35	10	45	39	7	46	26	9	35	1	3	4
10. Due to drugs and other exogenous toxins,	—	5	5	—	2	2	—	2	2	—	1	1	—	—	—
11. With pellagra,	—	—	—	3	3	6	4	7	11	4	6	10	—	—	—
12. With other somatic diseases,	11	16	27	12	30	42	18	26	44	38	43	81	—	—	—
13. Manic-depressive,	68	99	167	1	1	2	1	3	4	3	16	19	—	—	—
14. Involution melancholia,	5	25	30	1	—	1	48	26	74	181	156	337	—	—	—
15. Dementia præcox,	230	182	412	1	—	1	3	10	13	19	22	41	—	—	—
16. Paranoia or paranoid conditions,	22	32	54	3	2	5	5	4	9	18	18	36	2	2	4
17. Epileptic psychoses,	28	26	54	3	—	3	1	7	8	8	3	11	14	30	44
18. Psychoneuroses and neuroses,	23	40	63	—	—	—	2	1	3	2	2	4	—	—	—
19. With constitutional psychopathic inferiority,	4	1	5	—	—	—	4	3	7	3	4	7	—	—	—
20. With mental deficiency,	8	7	15	1	—	1	8	9	17	55	41	96	1	3	4
21. Undiagnosed psychoses,	65	53	118	1	—	1	8	3	11	183	184	367	183	184	367
22. Not insane,	183	184	367	—	—	—	—	—	—	—	—	—	—	—	—
23. No diagnosis,	18	24	42	—	—	—	—	—	—	18	22	40	—	2	2
Total,	910	779	1,689	58	49	107	155	115	270	493	389	882	204	226	430

TABLE 17. — Age of Patients at Time of Death classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1919.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.			
1. Traumatic,	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	
2. Senile,	12	28	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. With cerebral arteriosclerosis,	49	36	85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
4. General paralysis,	34	6	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5. With cerebral syphilis,	6	3	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. With Huntington's chorea,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
7. With brain tumor,	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8. With other brain or nervous diseases,	3	5	8	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	
9. Alcoholic,	7	2	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
11. With pellagra,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12. With other somatic diseases,	4	13	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
13. Manic-depressive,	6	14	20	—	—	—	—	—	—	1	1	2	1	2	3	1	2	3	1	2	3	1	2	
14. Involution melancholia,	2	8	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15. Dementia praecox,	29	32	61	—	—	—	1	2	3	6	3	9	8	4	12	6	5	11	4	1	5	2	3	
16. Paranoia or paranoid conditions,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
17. Epileptic psychoses,	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
19. With constitutional psychopathic inferiority,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
20. With mental deficiency,	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
21. Undiagnosed psychoses,	11	3	14	—	—	—	—	—	—	1	—	1	1	1	1	—	—	—	—	—	—	—	—	
22. Not insane,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
23. No diagnosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total,	172	153	325	—	—	—	1	2	3	10	4	14	11	7	18	13	9	22	12	7	19	9	18	

TABLE 19. — *Family Care Department, Year ending Sept. 30, 1919.*

	Males.	Females.	Totals.
Remaining Sept. 30, 1918,	—	8	8
Admitted within the year,	—	6	6
Nominal admissions from visit for year,	—	—	—
Whole number of cases within the year,	—	14	14
Dismissed within the year,	—	6	6
Returned to institution,	—	4	4
Discharged,	—	2	2
On visit,	—	—	—
Remaining Sept. 30, 1919,	—	8	8
Supported by State,	—	6	6
Private,	—	2	2
Self-supporting,	—	—	—
Number of different persons within year,	—	11	11
Number of different persons admitted,	—	6	6
Number of different persons discharged,	—	4	4
Daily average number,	—	8.08	8.08
State,	—	4.53	4.53
Private,	—	2.15	2.15
Self-supporting,	—	1.40	1.40
Reimbursing,	—	—	—

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The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1920

DEPARTMENT OF MENTAL DISEASES



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The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

TRUSTEES

OF THE

BOSTON STATE HOSPITAL

FOR THE

YEAR ENDING NOVEMBER 30, 1920

THE EIGHTIETH ANNUAL REPORT OF THE HOSPITAL
FOUNDED IN 1839 BY THE CITY OF BOSTON



BOSTON

WRIGHT & POTTER PRINTING CO., STATE PRINTERS
32 DERNE STREET

OCT 28 1924

PUBLICATION OF THIS DOCUMENT
APPROVED BY THE
SUPERVISOR OF ADMINISTRATION.

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BOSTON STATE HOSPITAL.

BOARD OF TRUSTEES.

HENRY LEFAVOUR, <i>Chairman</i> ,	Boston.
Mrs. KATHERINE G. DEVINE, <i>Secretary</i>,	. . . . .	Boston.
JOHN A. KIGGEN,	. . . . .	Boston.
WILLIAM F. WHITTEMORE,	Boston.
HYMAN B. SWIG, D.M.D.,	Lynn.
CHARLES B. FROTHINGHAM, M.D.,	Lynn.
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WILLIAM E. PREBLE, M.D.,	<i>Physician.</i>
FRED B. LUND, M.D.,	<i>Surgeon.</i>
IRVING J. WALKER, M.D.,	<i>Surgeon.</i>
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CHARLES J. WHITE, M.D.,	<i>Dermatologist.</i>
RALPH W. HATCH, M.D.,	<i>Ophthalmologist.</i>
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OFFICERS OF THE HOSPITAL.

JAMES V. MAY, M.D.,	<i>Superintendent.</i>
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HOSPITAL.

ERMY C. NOBLE, M.D.,	<i>Assistant Superintendent.</i>
MARY E. GILL NOBLE, M.D.,	<i>Senior Assistant Physician.</i>
EDMUND M. PEASE, M.D.,	. . . . .	<i>Senior Assistant Physician.</i>
RODERICK B. DEXTER, M.D.,	. . . . .	<i>Senior Assistant Physician.</i>
FLORENCE H. ABBOTT, M.D.,	. . . . .	<i>Senior Assistant Physician.</i>
GENEVA TRYON, M.D.,	. . . . .	<i>Senior Assistant Physician.</i>
JOHN C. LINDSAY, M.D.,	. . . . .	<i>Senior Assistant Physician.</i>
WILLIAM T. MERRILL, M.D.,	. . . . .	<i>Assistant Physician.</i>
CHARLES J. BOLTON, M.D.,	. . . . .	<i>Assistant Physician.</i>
LEO T. KEWER, M.D.,	. . . . .	<i>Assistant Physician.</i>
MARIE C. S. LINDSAY, M.D.,	. . . . .	<i>Assistant Physician.</i>
— — — — —	. . . . .	<i>Pathologist.</i>
REBEKAH B. WRIGHT, M.D.,	. . . . .	<i>Director of Hydrotherapy.</i>
LAWRENCE H. STONE, D.M.D.,	. . . . .	<i>Dentist.</i>
ARTHUR E. GILMAN,	. . . . .	<i>Steward.</i>
ADELINE J. LEARY,	. . . . .	<i>Treasurer.</i>

PSYCHOPATHIC DEPARTMENT.

HARLAN L. PAINE, M.D.,	.	.	.	.	.	<i>Chief Executive Officer.</i>
— — — — —,	.	.	.	.	.	<i>Chief Medical Officer.</i>
ARTHUR E. PATTRELL, M.D.,	.	.	.	.	.	<i>Executive Officer.</i>
LEWIS M. WALKER, M.D.,	.	.	.	.	.	<i>Medical Officer.</i>
JOHN F. O'BRIEN, M.D.,	.	.	.	.	.	<i>Medical Officer.</i>
FRANK J. GALE, M.D.,	.	.	.	.	.	<i>Assistant Executive Officer.</i>
JOHN R. FRANK, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
ALVIN MOSES, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
— — — — —,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
— — — — —,	.	.	.	.	.	<i>Assistant Medical Officer.</i>
PERCY L. DODGE, M.D.,	.	.	.	.	.	<i>Chief Medical Officer, Out- Patient Service.</i>
CHARLES B. SULLIVAN, M.D.,	.	.	.	.	.	<i>Assistant Medical Officer Out-Patient Service.</i>
WHITMAN K. COFFIN, M.D.,	.	.	.	.	.	<i>Roentgenologist.</i>
GLADYS L. LOWDEN,	.	.	.	.	.	<i>Chief Psychologist.</i>
HELEN L. MYRICK,	.	.	.	.	.	<i>Chief of Social Service.</i>

The Commonwealth of Massachusetts

TRUSTEES' REPORT.

To His Excellency the Governor and the Honorable Council.

The trustees of the Boston State Hospital have the honor to submit herewith their twelfth annual report.

MEETINGS AND MEMBERSHIP OF THE BOARD.

The Board has held its usual monthly meetings during the year, and in each month the hospital and psychopathic departments have been visited by a committee in accordance with the law, and a formal report of these visits has been made at the following meeting of the trustees.

In November Mrs. Helen B. Hopkins resigned her membership in this Board to accept an appointment in the newly organized Board of Trustees of the Boston Psychopathic Hospital. The vacancy thus created has been filled by the appointment of Mrs. Edna W. Dreyfus of Brookline.

PERSONS UNDER THE CARE OF THE TRUSTEES.

On Dec. 1, 1919, there were 1,661 patients in the hospital department, 74 in the psychopathic department, 9 boarded with private families, and 304 on visit or escape, a total of 2,048 persons under the care of the Board. On Nov. 30, 1920, the total number was 2,213, of whom 1,765 were in the hospital department, 64 in the psychopathic department, 10 in private care, and 374 on visit or escape. The total number of patients received in the wards of the psychopathic department during the year was 1,738, while in addition, 1,154 persons came to the out-patient department for advice and treatment.

CONSTRUCTION AND IMPROVEMENTS.

During the year the male infirmary building, furnishing accommodations for 338 patients, and authorized in 1918, has been completed and is now occupied. The two dining rooms and the nurses' home, authorized in 1919, are rapidly approaching completion.

IMPROVEMENTS RECOMMENDED.

The trustees have recommended to the Department of Mental Diseases the following additions and improvements, all of which are much needed:—

Administration building and staff quarters,	\$250,000 00
Superintendent's house,	46,000 00
Retaining wall, kitchen building, East Group,	28,000 00
Addition to refrigerating room,	8,000 00
Additional refrigerating machinery,	26,500 00
Addition to laundry building,	8,500 00
New laundry machinery,	12,000 00
Stokers for eight boilers,	30,000 00
Extension to sewer, water and steam lines,	19,000 00
New watch clock system, West Group,	3,500 00
Automatic CO ₂ and draft recorders,	4,200 00
Addition to garage,	3,000 00
Paint shop,	7,000 00
Sewer pipe for Canterbury Branch of Stony Brook,	2,550 00
Portable X-ray machine,	1,000 00
Fencing,	10,000 00
Pavement in front of power house,	10,000 00
New greenhouse,	7,600 00
New watch clock system, East Group,	2,800 00
Repairs to sewer, West Group,	7,500 00

ESTIMATES FOR MAINTENANCE.

The following are the estimates of the sum needed for maintenance for the ensuing year, based upon the existing salary scale and the data established by the Department of Mental Diseases:—

Personal services,	\$339,935 00
Religious instruction,	2,080 00
Travel, transportation and office expenses,	14,903 00
Food,	279,767 90
Clothing and materials,	49,111 00
Furnishings and household supplies,	67,844 00
Medical and general care,	24,253 50
Heat, light and power,	170,641 00
Farm,	17,755 67
Garage, stable and grounds,	8,937 70
Repairs, ordinary,	23,619 60
Repairs and renewals,	40,905 00
Total,	<hr/> \$1,039,753 73

It is expected that the highest per capita cost for materials has now been reached, and that there may be a substantial recession from the prices used in this estimate. It is doubtful, however, whether any lessened expense for salaries and wages is to be expected, since the present scale is not too high for normal conditions. It is higher than pre-war rates, but the Commonwealth has never realized in its expenditure for these institutions the necessity of offering the compensation that would command the personal qualities that are needed if the patients in these hospitals are to receive the care and consideration which should be given to the wards of the State. It is to be hoped that the present scale of salaries and wages may be maintained, and, if necessary, still further increased until the results desired are secured.

THE PSYCHOPATHIC DEPARTMENT.

With the conclusion of the year covered by this report, the responsibility for the psychopathic department by this Board of Trustees ceases, as the department becomes an independent institution under the name of the Boston Psychopathic Hospital, and under the administration of a separate board of trustees. The department was authorized in 1909, and the land was secured and the building erected under the supervision of this Board. Since its opening in 1912, the relation to the hospital department has consisted in the common

services which could be carried on economically, and in the direction and management by the superintendent and steward. Otherwise the two departments have been kept separate. The transition to the status of an independent institution has therefore been made without difficulty.

The death of Dr. Elmer E. Southard, for seven years director of this department, took place in New York in February, and the following minute was adopted by this Board:—

The trustees of the Boston State Hospital place on their records this expression of their appreciation of the eminent scientific service which Dr. Elmer E. Southard rendered to the State and especially to the psychopathic department of this hospital, of which he was the director from the beginning. He crowded into a too brief life an immense amount of valuable and productive work. He was an inspirer of men and a keen judge of their latent possibilities. His national reputation brought him in touch with many bright minds, and these young men he permanently influenced by his own enthusiasm and indefatigable and brilliant work in his chosen profession.

ADMINISTRATIVE DETAILS.

The details of the history of the year are presented in the reports of the superintendent and other officers which are printed herewith and to which reference may be made.

HENRY LEFAVOUR.
KATHERINE G. DEVINE.
JOHN A. KIGGEN.
WILLIAM F. WHITTEMORE.
HYMAN B. SWIG.
CHARLES B. FROTHINGHAM.
EDNA W. DREYFUS.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the Boston State Hospital.

In accordance with the provisions of the statutes, I am submitting for your consideration the report of the superintendent for the statistical year ending September 30, 1920, and the fiscal year ending November 30, 1920. Founded by the city of Boston in 1839, this completes the twelfth year of the history of the institution as a State hospital, and the eighty-first year of its continuous existence as a hospital for mental diseases.

MOVEMENT OF POPULATION (ENTIRE INSTITUTION).

The census, including the psychopathic department, on Sept. 30, 1919, was as follows: in the wards, men, 764, women, 963, total, 1,727; at home on visit, men, 105, women, 191, total, 296; boarding out, women, 8; and out on escape, men, 8; making a total of 2,039, 877 men and 1,162 women, in the custody of the institution.

One thousand and fourteen men and 965 women, a total of 1,979, were admitted during the year. This included the following: first admissions, men, 788, women, 778, total, 1,566; readmissions, men, 216, women, 173, total, 389; and transfers from other institutions, men, 3, women, 7, total, 10. One thousand four hundred and eighty-three cases, including 772 men and 711 women, were discharged during the year. Fourteen men and 16 women, a total of 30, were transferred to other institutions. One hundred and forty-five men and 132 women, a total of 277, died during the year.

The census of the institution on Sept. 30, 1920, was as follows: in the wards, men, 808, women, 1,038, total, 1,846; at home on visit, men, 139, women, 213, total, 352; boarding out, women, 8; and out on escape, men, 6, women, 2, total, 8; making a total of 2,214, 953 men and 1,261 women, in the custody of the institution.

The total number of cases treated during the year was 4,018.

The average daily number of patients for the year was: men, 924.77, women, 1,199.78, total, 2,124.55. The average daily number in the wards was: men, 793.37, women, 993.23, total, 1,786.60, or 84.09 per cent of the whole number. The average daily number at home on visit was: men, 126.46, women, 195.57, total, 322.03, or 15.15 per cent. The average daily number boarding out was: women, 9.28, or .44 per cent. The average daily number out on escape was: men, 4.94, women, 1.70, total, 6.64, or .32 per cent. The average daily number of committed cases was: men, 760.36, women, 956.52, total, 1,716.88, or 96.10 per cent of the number in the wards. The average daily number of voluntary cases was: men, 15.95, women, 20.48, total, 36.43, or 2.04 per cent. The average daily number of temporary care cases was: men, 17.06, women, 16.23, total, 33.29, or 1.86 per cent. The average daily number under complaint or indictment was: men, 5.19, women, .75, total, 5.94, or .33 per cent. The average daily number of epileptics was: men, 12.22, women, 21.29, total, 23.51, or 1.32 per cent. The average daily number of private cases was: men, 8.75, women, 69.78, total, 78.53, or 4.39 per cent. The average daily number of reimbursing cases was: men, 21.56, women, 106.32, total, 127.88 or 7.78 per cent. There was a daily average of 14.17 deportation cases and 33.44 soldier cases. The average daily number of cases supported by the State was: men, 742.33, women, 790.25, total, 1,532.58, or 85.78 per cent.

The recovery rate, based on the number of first admissions, was 6.32 per cent; based on the total number cared for during the year, 2.46 per cent; and based on the average daily population of the institution, 5.54 per cent.

The death rate, based on the number of first admissions, was 17.69 per cent; based on the total number cared for during the year, 6.89 per cent; and based on the average daily population, 15.50 per cent.

Attention should be called to the fact that the recovery and death rate as shown above are practically without any significance, as they are based on a population which includes a large number of temporary care cases having only a very short

residence in the hospital. The recovery rate is, furthermore, materially lowered by the inclusion of a large number of cases in the psychopathic department without psychoses. The death rate is a very unusual one, owing to the necessity of caring for a large number of senile and infirm cases committed to the Boston State Hospital because their physical condition will not permit of their going to another institution.

Of the first admissions, 298, or 42.94 per cent, were foreign born, and 540, or 77.81 per cent, were of foreign parentage on one or both sides. Two hundred and twenty-eight, or 32.85 per cent, were aliens.

The average age on admission was 43.39; 142, or 20.46 per cent, were sixty years of age or over.

Of the 694 first admissions, exclusive of temporary care, the cause was unascertained or no cause given in 448 cases, or 64.56 per cent. In the 246 cases where a definite cause was assigned, the etiological factors were as follows: alcoholism, 12, or 4.88 per cent; arteriosclerosis, 24, or 9.76 per cent; involutional changes, 8, or 3.25 per cent; traumatism, 2, or .79 per cent; senility, 51, or 20.73 per cent; and syphilis, 66, or 26.84 per cent. There was a family history of mental disease in 61, or 8.71 per cent, and a family history of nervous disease in 23, or 3.31 per cent, of these cases.

The forms of mental disease shown by all first admissions, exclusive of temporary care, briefly summarized, were as follows: senile psychoses, 68, or 9.80 per cent; psychoses with cerebral arteriosclerosis, 54, or 7.78 per cent; general paralysis, 67, or 9.65 per cent; psychoses with other brain or nervous diseases, 12, or 1.80 per cent; alcoholic psychoses, 15, or 2.25 per cent; psychoses with other somatic diseases, 24, or 3.60 per cent; manic-depressive psychoses, 57, or 8.55 per cent; involution melancholia, 11, or 1.65 per cent; dementia præcox, 163, or 24.45 per cent; paranoia or paranoid conditions, 31, or 4.65 per cent; epileptic psychoses, 11, or 1.65 per cent; psychoneuroses and neuroses, 12, or 1.80 per cent; psychoses with mental deficiency, 7, or 1.05 per cent; undiagnosed psychoses, 47, or 7.05 per cent; various other psychoses amounting to less than 1 per cent; and without psychosis, 99, or 14.85 per cent. Attention should be called to the fact that the relative frequency of the various psychoses as indicated by

the percentages shown above is of comparatively little significance, owing to the fact that the total number includes 14.85 per cent without psychosis.

The forms of mental disease shown by the readmissions, exclusive of temporary care, briefly summarized, were as follows: senile psychoses, 3, or 1.41 per cent; psychoses with cerebral arteriosclerosis, 10, or 4.70 per cent; general paralysis, 12, or 5.64 per cent; psychoses with cerebral syphilis, 3, or 1.41 per cent; alcoholic psychoses, 4, or 1.88 per cent; manic-depressive psychoses, 39, or 18.33 per cent; involution melancholia, 6, or 2.82 per cent; dementia præcox, 62, or 29.14 per cent; paranoia or paranoid conditions, 8, or 3.76 per cent; psychoneuroses and neuroses, 7, or 3.29 per cent; psychoses with psychopathic personality, 4, or 1.88 per cent; psychoses with mental deficiency, 8, or 3.76 per cent; undiagnosed psychoses, 13, or 6.11 per cent; various other psychoses less than 1 per cent; and without psychosis, 28, or 13.16 per cent.

The psychoses represented by the cases discharged, exclusive of temporary care, during the year were as follows: senile psychoses, 13, or 2.72 per cent; psychoses with cerebral arteriosclerosis, 13, or 2.72 per cent; general paralysis, 18, or 3.78 per cent; psychoses with cerebral syphilis, 5, or 1.05 per cent; alcoholic psychoses, 28, or 5.88 per cent; psychoses with other somatic diseases, 16, or 3.36 per cent; manic-depressive psychoses, 80, or 16.80 per cent; involution melancholia, 10, or 2.10 per cent; dementia præcox, 90, or 18.90 per cent; paranoia or paranoid conditions, 17, or 3.57 per cent; epileptic psychoses, 5, or 1.05 per cent; psychoneuroses or neuroses, 23, or 4.83 per cent; psychoses with psychopathic personality, 5, or 1.05 per cent; psychoses with mental deficiency, 7, or 1.47 per cent; undiagnosed psychoses, 30, or 6.30 per cent; various other psychoses amounting to less than 1 per cent; and without psychosis, 109, or 22.80 per cent.

The total number of discharges, exclusive of temporary care, during the year was 478. Of this number, 67, or 14.02 per cent, were discharged as recovered; 164, or 34.31 per cent, as improved; 121, or 25.31 per cent, as unimproved; and 126, or 26.36 per cent, as without psychosis. Of the 67 recovered cases, 42, or 62.70 per cent, were cases of manic-depressive

psychoses; 11, or 16.42 per cent, alcoholic psychoses; 8, or 12 per cent, psychoses with other somatic diseases; and 2, or 3 per cent, involution melancholia. Of the 164 discharged as improved, 45, or 27.44 per cent, were cases of dementia præcox; 28, or 17.07 per cent, manic-depressive psychoses; 16, or 9.75 per cent, alcoholic psychoses; 6, or 3.66 per cent, involution melancholia; and 11, or 6.71 per cent, psychoneuroses or neuroses. Of the 121 discharged as unimproved, 44, or 36.36 per cent, were cases of dementia præcox; 7, or 5.78 per cent, senile psychoses; 8, or 6.61 per cent, paranoia or paranoid conditions; 8, or 6.61 per cent, psychoses with cerebral arteriosclerosis; and 10, or 8.26 per cent, manic-depressive psychoses.

The principal causes of death were as follows: erysipelas, 4, or 1.64 per cent; tuberculosis of the lungs, 20, or 8.20 per cent; other forms of tuberculosis, 4, or 1.64 per cent; cancer, 8, or 3.28 per cent; cerebral hemorrhage, 8, or 3.28 per cent; general paralysis of the insane, 26, or 10.66 per cent; chronic myocarditis, 17, or 6.96 per cent; arteriosclerosis, 20, or 8.20 per cent; other diseases of the arteries, 5, or 2.05 per cent; other diseases of the circulatory system, 4, or 1.64 per cent; broncho pneumonia, 54, or 22.14 per cent; lobar pneumonia, 12, or 4.92 per cent; diarrhœa and enteritis, 4, or 1.64 per cent; other diseases of the intestines, 10, or 4.10 per cent; chronic nephritis, 8, or 3.28 per cent; other diseases of the kidneys and adnexa, 6, or 2.46 per cent; and diseases of the bladder, 4, or 1.64 per cent.

The psychoses represented by deaths occurring during the year were as follows: senile psychoses, 47, or 19.26 per cent; psychoses with cerebral arteriosclerosis, 45, or 18.45 per cent; general paralysis, 56, or 22.95 per cent; psychoses with cerebral syphilis, 5, or 2.05 per cent; psychoses with Huntington's chorea, 3, or 1.23 per cent; psychoses with brain tumor, 3, or 1.23 per cent; alcoholic psychoses, 10, or 4.10 per cent; psychoses with other somatic diseases, 11, or 4.50 per cent; manic-depressive psychoses, 19, or 7.79 per cent; involution melancholia, 11, or 4.50 per cent; dementia præcox, 20, or 8.20 per cent; paranoia or paranoid conditions, 5, or 2.05 per cent; undiagnosed psychoses, 3, or 1.23 per cent; and various other psychoses amounting to less than 1 per cent.

FINANCIAL STATEMENT.

The appropriation for the maintenance of the institution for the fiscal year ending Nov. 30, 1920, was \$798,100. The total amount available, including funds carried over from the year before, was \$863,902.75. The maintenance expenditures for the year were as follows:—

	Amount expended.	Per Capita.	Percentage of Total.
Personal services,	\$315,072 51	\$173 72	36.86
Travel, transportation, and office expenses, . .	14,163 94	7 81	1.65
Food,	247,573 07	136 50	28.97
Religious instruction,	1,773 33	98	.21
Clothing and materials,	32,233 64	17 77	3.77
Furnishings and household supplies,	58,978 32	32 52	6.90
Medical and general care,	20,376 51	11 23	2.39
Heat, light, and power,	114,575 61	63 17	13.41
Farm and stable,	12,232 94	6 74	1.43
Grounds,	13,084 35	7 22	1.53
Repairs, ordinary,	22,638 61	12 48	2.65
Repairs and renewals,	1,986 18	1 10	.23
Total,	\$854,689 01	\$471 24	100.00

The maintenance expenditures for the hospital department for the year are shown on page 39; the expenditures for the psychopathic department are shown on page 87. Based on the average daily population of the institution for the year 1,813.69, the per capita cost for 1920 was \$471.24, or \$9.00 per week. The per capita cost of the hospital department for the year is shown on page 39, and the per capita cost of the psychopathic department on page 88.

It is hardly necessary to suggest that for purposes of comparison with other hospitals the expenditures of the institution must be analyzed separately by departments. The cost of maintaining a psychopathic department is out of all proportion to the maintenance costs necessary for the operation of an institution conducted exclusively along ordinary State hospital lines. For the same reason, it is obvious that if the cost of

maintaining the Boston State Hospital is to be compared with the other institutions under the jurisdiction of the Department of Mental Diseases, the cost of operating the psychopathic department should be eliminated.

Attention is called to the fact that the preceding statistical and financial statements relate to the institution as a whole. A report of the operations of the Boston State Hospital by departments will be made separately under the following headings: I. The Hospital; II. The Psychopathic Department.

I. THE HOSPITAL.

MOVEMENT OF POPULATION.

The census of the hospital department on Sept. 30, 1919, was as follows: in the wards, men, 719, women, 929, total, 1,648; at home on visit, men, 76, women, 147, total, 223; boarding out, women, 8; and out on escape, men, 8; making a total of 1,187 in the custody of the hospital department.

Two hundred and fifty-one men and 310 women, a total of 561, were admitted during the year. This included the following: first admissions, men, 48, women, 109, total, 157; re-admissions, men, 20, women, 25, total, 45; received from the psychopathic department, men, 180, women, 170, total, 350; and transferred from other institutions, men, 3, women, 6, total, 9. One hundred and eighty-seven cases, including 72 men and 115 women, were discharged during the year. One man was transferred to the psychopathic department, and 11 men and 10 women, a total of 21, were transferred to other institutions. One hundred and sixteen men and 107 women, a total of 223, died during the year.

The census on Sept. 30, 1920, was as follows: in the wards, men, 767, women, 996, total, 1,763; at home on visit, men, 81, women, 156, total, 237; boarding out, women, 8; and out on escape, men, 6, women, 2, total, 8; making a total of 2,016, 854 men and 1,162 women, in the custody of the hospital department.

The total number of cases treated during the year was 2,448, 1,054 men and 1,394 women.

The average daily number of patients for the year was: men, 839.90, women, 1,112.69, total, 1,952.59. The average

daily number in the wards was: men, 751.95, women, 949.39, total, 1,701.34, or 87.13 per cent of the whole number. The average daily number at home on visit was: men, 83.02, women, 152.32, total, 235.34, or 12.05 per cent. The average daily number boarding out was: women, 9.28, or .48 per cent. The average daily number out on escape was: men, 4.93, women, 1.70, total, 6.63, or .34 per cent. The average daily number of committed cases was: men, 742.52, women, 938.16, total, 1,680.68, or 98.79 per cent of the number in the wards. The average daily number of voluntary cases was: men, 9.43, women, 11.23, total, 20.66, or 1.22 per cent. The average daily number of emergency cases was: men, 0, women, .08, total, .08, or .004 per cent. The average daily number of cases under complaint or indictment was: men, 3.63, women, .38, total, 4.01, or .23 per cent. The average daily number of epileptics was: men, 11.50, women, 10.80, total, 22.30, or 1.31 per cent.

The recovery rate, based on the number of first admissions was 38.86 per cent; based on the total number cared for during the year, 2.5 per cent; and based on the average daily number in the wards, 3.59 per cent.

The death rate, based on the total number cared for during the year, was 9.11 per cent; and based on the average daily number in the wards, 13.11 per cent. The death rate of the hospital is unusually large when compared with that of other institutions of a similar character, as nearly 30 per cent of the population is of the infirmary type, and 10 per cent represents actual bed cases. This is due to the fact that the acutely ill, the senile and the infirm cases from the city cannot be readily transported to distant institutions and are therefore committed to the Boston State Hospital. It is obvious that for the same reason too much significance should not be attached to the recovery rate.

Of the first admissions, 78, or 49.68 per cent, were foreign born, and 129, or 82.16 per cent, were of foreign parentage on one or both sides. Thirty-eight, or 24.2 per cent, were aliens.

The average age on admission was 56.69; 77, or 49 per cent were sixty years of age or over, and 48, or 30.6 per cent, were seventy years of age or over.

Of the first admissions, 48 men and 106 women, a total of 154, or 98.08 per cent, were committed under the provisions of section 30 of chapter 504 of the Acts of 1909; 1 woman, or .64 per cent, was a voluntary case, admitted under the provisions of section 45 of chapter 504 of the Acts of 1909; 2 women, or 1.28 per cent, were emergency cases, admitted under the provisions of section 42 of chapter 504 of the Acts of 1909; and no persons held under complaint or indictment were committed under the provisions of chapter 46 of the General Acts of 1917.

One hundred and fifty-four committed cases (section 30, chapter 504, Acts of 1909) were admitted during the year. Two hundred cases were discharged, of which 59, or 29.5 per cent, were discharged as recovered; 92, or 46 per cent, as improved; 25, or 12.5 per cent, as unimproved; 3, or 1.5 per cent, as without psychosis; and 21, or 10.50 per cent, were transferred to other institutions for the insane.

One voluntary case (section 45, chapter 504, Acts of 1909) was admitted during the year. Seven cases were discharged, of which 2, or 28.57 per cent, were discharged as recovered; 3, or 42.86 per cent, as improved; and 2, or 28.57 per cent, as unimproved.

Two emergency cases (section 42, chapter 504, Acts of 1909) were admitted during the year. Both of these cases were committed within a few days and are still in the institution.

Of the 157 first admissions, the cause was unascertained or no cause given in 58 cases, or 36.94 per cent. In the 99 cases where a definite cause was assigned the etiological factors were as follows: senility, 27, or 27.27 per cent; arteriosclerosis, 17, or 17.17 per cent; syphilis, 13, or 13.13 per cent; alcoholism and involutional changes, each, 6, or 6.06 per cent; and traumatism, 1, or 1.01 per cent. There was a family history of mental disease in 29, or 18.47 per cent, and a family history of nervous diseases in 16, or 10.19 per cent of the first admissions.

The forms of mental disease shown by the first admissions briefly summarized were as follows: senile psychoses, 44, or 28.02 per cent; psychoses with cerebral arteriosclerosis, 29, or 18.47 per cent; general paralysis, 13, or 8.28 per cent;

alcoholic psychoses, 4, or 2.54 per cent; psychoses with other somatic diseases, 6, or 3.81 per cent; manic-depressive psychoses, 10, or 6.36 per cent; involution melancholia, 2, or 1.27 per cent; dementia præcox, 21, or 13.37 per cent; paranoia or paranoid condition, 13, or 8.28 per cent; epileptic psychoses, 2, or 1.27 per cent; psychoses with mental deficiency, 4, or 2.54 per cent; undiagnosed psychoses, 3, or 1.91 per cent; and all other psychoses 1 per cent or less. All of these were committed cases (section 30, chapter 504, Acts of 1909) with the exception of one voluntary admission (section 45, chapter 504, Acts of 1909), psychosis with cerebral arteriosclerosis; and two emergency commitments (section 42, chapter 504, Acts of 1909), the psychoses of which were manic-depressive psychosis and paranoia or paranoid condition, respectively. The psychoses of all first admissions are shown in Table No. 6, on page 105.

The forms of mental disease shown by the readmissions briefly summarized were as follows: psychoses with cerebral arteriosclerosis, 7, or 15.54 per cent; manic-depressive psychoses, 11, or 24.42 per cent; involution melancholia, 2, or 4.44 per cent; dementia præcox, 11, or 24.42 per cent; paranoia or paranoid condition, 2, or 4.44 per cent; psychoses with psychopathic personality, 2, or 4.44 per cent; psychoses with mental deficiency, 5, or 11.10 per cent; and all other psychoses 1 per cent or less.

Of these readmissions, one was an emergency commitment (section 42, chapter 504, Acts of 1909) with manic-depressive psychosis, depressive type; and five were voluntary admissions (section 45, chapter 504, Acts of 1909) with the following psychoses: manic-depressive, depressive type, 3; psychosis with cerebral syphilis, 1; and psychosis with psychopathic personality, 1. The remaining 39 readmissions were all committed in accordance with section 30, chapter 504, Acts of 1909.

The forms of mental disease shown by the 351 cases received from the psychopathic department were as follows: senile, 19, or 5.41 per cent; psychoses with cerebral arteriosclerosis, 19, or 5.41 per cent; general paralysis, 48, or 13.68 per cent,

alcoholic psychoses, 12, or 3.42 per cent; psychoses with somatic diseases, 5, or 1.42 per cent; manic-depressive psychoses, 62, or 17.66 per cent; involution melancholia, 8, or 2.28 per cent; dementia præcox, 137, or 39.03 per cent, paranoia or paranoid condition, 14, or 3.98 per cent; psychoses with psychopathic personality, 4, or 1.14 per cent; psychoses with mental deficiency, 8, or 2.28 per cent; undiagnosed psychoses, 4, or 1.14 per cent, and all other psychoses 1 per cent or less.

The psychoses represented by the cases discharged from the hospital department during the year were as follows: traumatic psychoses, 3, or 1.60 per cent; senile psychoses, 7, or 3.73 per cent; psychoses with cerebral arteriosclerosis, 6, or 3.20 per cent; general paralysis, 4, or 2.13 per cent; psychoses with cerebral syphilis, 3, or 1.60 per cent; alcoholic psychoses, 22, or 11.71 per cent; psychoses with other somatic diseases, 9, or 4.80 per cent; manic-depressive psychoses, 54, or 28.80 per cent; involution melancholia, 8, or 4.26 per cent; dementia præcox, 43, or 23 per cent; paranoia or paranoid condition, 8, or 4.26 per cent; psychoneuroses and neuroses, 6, or 3.20 per cent; psychoses with psychopathic personality, 4, or 2.13 per cent; psychoses with mental deficiency, 2, or 1.06 per cent; undiagnosed psychoses, 2, or 1.06 per cent; without psychosis, 4, or 2.13 per cent; and all other psychoses 1 per cent or less.

The total number of cases discharged during the year was 187. Of this number, 61, or 32.61 per cent, were discharged as recovered; 95, or 50.81 per cent, as improved; 27, or 14.44 per cent, as unimproved; and 4, or 2.13 per cent, as without psychosis. Of the 61 recovered cases, 41, or 67.21 per cent, were cases of manic-depressive psychoses; 11, or 18.03 per cent, alcoholic psychoses; 7, or 11.47 per cent, psychoses with other somatic diseases; and 2, or 3.28 per cent, involution melancholia. Of the 95 cases discharged as improved, 30, or 31.58 per cent, were cases of dementia præcox; 15, or 15.79 per cent, manic-depressive psychoses; 11, or 11.58 per cent, alcoholic psychoses; 6, or 6.32 per cent, involution melancholia; and 6, or 6.32 per cent, psychoneuroses or neuroses. Of the

27 cases discharged as unimproved, 12, or 44.44 per cent, were cases of dementia præcox; 4, or 14.81 per cent, senile psychoses; 4, or 14.81 per cent, paranoia or paranoid condition; and 3, or 11.11 per cent, psychoses with cerebral arteriosclerosis.

Of the 223 deaths occurring during the year, 115, or 51.57 per cent, represented cases dying at the age of sixty or over. In 70 cases, or 31.39 per cent, death occurred at the age of seventy or over.

The principal causes of death during the year were as follows: tuberculosis of the lungs, 19, or 8.52 per cent; cancer, 7, or 3.14 per cent; cerebral hemorrhage, 8, or 3.58 per cent; general paralysis of the insane, 24, or 10.74 per cent; chronic myocarditis, 15, or 6.72 per cent; arteriosclerosis, 19, or 8.52 per cent; bronchopneumonia, 49, or 21.97 per cent; lobar pneumonia, 10, or 4.48 per cent; diarrhœa and enteritis, 4, or 1.79 per cent; other diseases of the intestines, 10, or 4.48 per cent; chronic nephritis, 6, or 2.68 per cent; and other diseases of the kidneys and adnexa, 6, or 2.68 per cent. There was one death from influenza during the year.

The psychoses represented by deaths occurring in the hospital department during the year were as follows: senile psychoses, 45, or 20.17 per cent; psychoses with cerebral arteriosclerosis, 44, or 19.69 per cent; general paralysis, 52, or 23.32 per cent; psychoses with cerebral syphilis, 5, or 2.25 per cent; psychoses with Huntington's chorea, 3, or 1.34 per cent; alcoholic psychoses, 10, or 4.48 per cent; dementia præcox, 19, or 8.52 per cent; paranoia or paranoid condition, 5, or 2.25 per cent; and all other psychoses 1 per cent or less. Of the 45 cases of senile psychoses dying in the hospital during the year, 8, or 17.77 per cent, were due to bronchopneumonia. Of the 44 cases of arteriosclerotic psychoses death was due in 10, or 22.73 per cent, to bronchopneumonia, and in 11, or 25 per cent, death was attributed directly to arteriosclerosis. Of the 52 cases of general paralysis, 19, or 36.54 per cent, were reported as dying from bronchopneumonia, and in 24, or 46.15 per cent, general paralysis of the insane was given as the cause of death. Of the 19 cases of dementia præcox death was due in 8, or 42.10 per cent, to pulmonary

tuberculosis, and in 2, or 10.52 per cent, to bronchopneumonia. Of the 10 cases of involution melancholia, the cause of death was reported as pulmonary tuberculosis in 4, or 40 per cent, and of the 17 cases of manic-depressive psychoses, this cause was given in 3, or 17.65 per cent.

Of the 223 patients dying in the hospital during the year the total duration of hospital residence was as follows: one year or less, 99, or 44.40 per cent; one to two years, 41, or 18.39 per cent; two to three years, 15, or 6.72 per cent; three to four years, 16, or 7.17 per cent; four to five years, 8, or 3.58 per cent; five to six years, 10, or 4.48 per cent; six to seven years, 6, or 2.68 per cent; seven to eight years, 7, or 3.13 per cent; eight to nine years, 4, or 1.79 per cent; nine to ten years, 4, or 1.79 per cent; ten to fifteen years, 8, or 3.58 per cent; fifteen to twenty years, 2, or .89 per cent; over twenty years, 3, or 1.34 per cent. One woman, a case of manic-depressive psychosis, circular type, had a hospital residence of over twenty-five years, and two cases of dementia præcox, both male, had a hospital residence of over thirty and over fifty-three years, respectively. The average duration of hospital residence of the cases dying in the hospital during the year was three years, six months and twenty days. The psychoses showing the longest hospital residence were as follows: dementia præcox, nineteen, thirty and fifty-three years; manic-depressive psychoses, twelve and twenty-five years; psychosis with Huntington's chorea, sixteen years; involution melancholia, eleven and fourteen years; general paralysis and psychosis with cerebral syphilis, each eleven years; paranoia or paranoid condition, ten years; alcoholic psychoses, nine and thirteen years; senile psychoses and psychoses with cerebral arteriosclerosis, nine years each.

The following general statistical information relating to the ward service should be of interest: —

	Males.	Females.	Totals.	Percentage.
Average daily population, . . .	751.95	949.39	1,701.34	100.00
In bed,	63.60	85.30	148.90	8.75
In restraint,	3.70	2.46	6.16	.36
In seclusion,	6.29	6.68	12.97	.76
Eating in dining rooms, . . .	656.66	747.50	1,404.16	82.53
Eating in the wards,	95.29	201.89	297.18	17.47
Fed by nurses,	17.18	30.51	47.69	2.80
Idle,	348.63	525.62	874.25	51.39
Employed,	403.32	423.77	827.09	48.61
Parole of grounds,	144.18	66.86	211.04	12.40
Out for exercise,	495.37	407.70	903.07	53.08
Noisy,	40.59	99.96	140.55	8.26
Violent,	3.41	25.04	28.45	1.67
Destructive,	10.11	37.16	47.27	2.78
Soiled or wet,	66.46	97.93	164.39	9.66
Taking medicine,	17.47	36.04	53.51	3.15
Infirm,	225.47	245.67	471.14	27.69

The percentages shown in the above table represent the average daily number in each instance for the entire year, thus: the average daily number of patients in bed was 148.90, or 8.75 per cent of the average daily population, and the average daily number out for exercise was 903.07, or 53.08 per cent of the average daily population. The table shows an unusually large percentage of our population to consist of bed cases. As has already been explained, this is largely due to the fact that the senile and infirm cases cannot readily be removed to institutions outside of the metropolitan district, and come to the Boston State Hospital. The hospital has, for this reason, an infirmary class approximating 30 per cent of the total number of cases cared for. The number of patients in restraint and seclusion, as shown by the above table, is exceedingly small, although larger than the percentages shown for the preceding year, owing to the fact that there has been such an unfortunate shortage of nurses and attendants. If the percentage of infirm cases is eliminated (and this, of course, includes the bed patients), the average daily number going out for exercise must be looked upon as quite large. The average

daily number of noisy patients is of considerable interest. The number of patients actually violent is not at all consistent with the popular ideas regarding institutions of this type. The number of patients actually employed in useful occupations should not be looked upon as small if the percentage of bed cases is taken into consideration. The number actually taking medicine would be considerably smaller if it were not for the senile and infirm population.

GENERAL HEALTH OF THE HOSPITAL.

The general health of the hospital has been good during the year. There was a mild epidemic of influenza during the winter months, which did not compare in severity in any way with the epidemic of the previous year. During the winter of 1918-19, as has been shown by previous reports, there was a total of 340 cases of influenza, with 28 deaths in all. There was a recurrence of this disease during the early months of 1920, the first case occurring on February 26. A total of 30 patients and 8 employees were diagnosed as suffering with influenza, and two patients died after developing pneumonia. There were no other deaths. All of the cases were in the East Group.

In February one female patient and two nurses in the East Group developed scarlet fever. These cases were all sent to the contagious wards of the Boston City Hospital and made good recoveries. We were fortunate enough to be able to prevent any epidemic.

There was a small series of very mild cases of dysentery, all confined to the West Group and occurring in building B, which is an infirmary. There were 42 cases without any deaths or serious complications. It was impossible to ascertain the cause of infection. Practically all of the patients affected were advanced senile cases. It will be recalled that there was a mild epidemic of the same variety in both groups during the previous year, which was investigated very thoroughly by Drs. Rosenau and Sisco of the Harvard Medical School. It was impossible, however, to obtain any information which would throw any light on the cause of the epidemic.

There was the usual number of minor accidents and injuries

in the wards of the hospital during the year. All of these were thoroughly investigated and reported in the usual manner to the Board of Trustees and the Department of Mental Diseases.

The number of deaths occurring during the year is shown on page 121, and the autopsy rate is shown in the report of the pathological work done during the year.

EMPLOYEES.

The difficulty of obtaining an adequate force of employees in the hospital department unfortunately continues, with no prospect of improvement at the present time. On Sept. 30, 1919, there were 324 employees in the hospital department. During the year 682 were appointed, 649 resigned and 37 were discharged. Ten hundred and six persons occupied 380 positions, — a rotation of 2.65. This difficulty cannot be entirely ascribed to the rate of wages paid. A new schedule, as agreed upon by the Department of Mental Diseases and the Supervisor of Administration, became operative on June 1, 1920, providing for a liberal increase all along the line. Curiously enough, this resulted in little, if any, improvement. As a matter of fact, the percentage of shortage is greater for this year than it was last. It is difficult to determine exactly why this should be the case. The wages paid in the city of Boston have, of course, been increasing constantly, and positions in the hospital have certainly not been attractive from a financial point of view. For some reason, the number of persons applying for admission to the training school for nurses is decreasing. This is not due to the fact that applicants do not find training in hospitals for mental diseases less attractive than formerly. The general hospitals have been having as much difficulty in keeping up the standards of their nursing service as we have. Clerks, stenographers, waitresses, domestics, engineers, firemen and mechanics generally are paid a much higher rate of wages in the city of Boston than we can offer them in the State hospital service. It is also true that persons of the type applying formerly for employment in State hospitals are now turning largely to the more attractive pay and shorter hours offered them in the large manufacturing

establishments. If we are to have a full force of employees we must pay even higher wages than those authorized in the new schedule. The average daily number of employees during the year was 305.30, with 15.71 per cent of vacancies. The average daily number in the ward service was 161.96, with 22.17 per cent of vacancies. This reduction in the nursing service has affected the standard of care in the wards. It has not been possible to employ as many patients as have been occupied heretofore; more restraint and seclusion has naturally been necessary; and lack of supervision has resulted in a considerable increase in the destruction of clothing and ward linen in the violent wards. We have had considerable difficulty in handling the number of visitors calling at the hospital to see their relatives and friends. The total number of visits made to the patients at the hospital department during the last year was 51,294. The decreased number of nurses has undoubtedly been a material factor in increasing the number of accidents, injuries and escapes. One of the things that has made it difficult to maintain an adequate force of employees is our inability to furnish comfortable living quarters. The occupancy of the new nurses' home in the East Group will remedy this situation to a certain extent. We are still badly in need of quarters for employees working outside. The old farmhouse in the West Group should be torn down and replaced as soon as possible, as it has been difficult for us to induce our farm employees to live in it.

The shortage of staff quarters is also a serious matter which should be remedied as soon as the cost of construction will permit.

THE MEDICAL SERVICE.

Dr. Dora W. Faxon, a senior assistant physician, was granted leave of absence on June 1, on account of ill health. Dr. Charles J. Bolton of Somerville, who served at the hospital some years since, was reappointed to the position of assistant physician on Jan. 15, 1920. Dr. Leo T. Kewer of Waverley, was appointed assistant physician on Feb. 1, 1920. Dr. Kewer was graduated from Tufts College Medical School in 1913, and spent four years in the Medical Corps of the army during the war as a member of the Harvard Surgical Unit. Dr.

Oscar J. Raeder, assistant pathologist to the Department of Mental Diseases, who has acted as pathologist at the hospital for some time, resigned in March, 1920. Dr. Geneva Tryon was appointed senior assistant physician on July 1, 1920. Dr. Tryon was a member of the staff of the Pontiac State Hospital, Pontiac, Mich., at the time of her appointment here. Dr. Arthur W. Hicks, who has been resident dentist at the hospital since Nov. 1, 1919, resigned on Oct. 2, 1920. On Nov. 26, 1920, Dr. Lawrence H. Stone was appointed to fill this vacancy. Dr. Ralph W. Hatch was appointed consulting ophthalmologist on Nov. 15, 1920, and on the same date Dr. Fred A. Simmons was appointed consulting laryngologist, rhinologist and otologist. Dr. John C. Lindsay was appointed senior assistant physician, and Dr. Marie C. S. Lindsay assistant physician, to take effect Dec. 1, 1920. Both of these physicians were formerly on the staff of the Worcester State Hospital.

The work of the out-patient department of the hospital includes the supervision of patients in family care, those at home on visit, the after care of cases discharged from the custody of the hospital, and medical advice given to numerous persons who visit the hospital for the purpose of consulting members of the staff on matters pertaining to their own welfare or that of their family or relatives. The patients who have been allowed to go home on visit, or who have left the hospital temporarily for family care, are visited at frequent intervals by the social service workers of the hospital. Patients who are at home on visit are also required to present themselves at the hospital at regular intervals for observation. Considerable supervision is also given to former patients who have been discharged but who are kept under observation by the social workers and the physicians. Some cases appearing for consultation are accepted as voluntary patients. Others are referred to their family physicians or to the psychopathic department. The following is a report of the movement of population of patients under the supervision of the out-patient department: —

	Males.	Females.	Totals.
In family care Sept. 30, 1919,	—	8	8
On escape Sept. 30, 1919,	8	—	8
On visit Sept. 30, 1919,	76	147	223
Dismissed to family care during the year,	—	7	7
Dismissed on visit during the year,	988	789	1,777
Escaped during the year,	38	5	43
Admitted from family care,	—	7	7
Admitted from escape,	33	3	36
Admitted from visit,	926	673	1,599
Admitted from family care and discharged,	—	—	—
Admitted from visit and discharged,	57	107	164
Admitted from escape and discharged,	7	—	7
In family care Sept. 30, 1920,	—	8	8
On escape Sept. 30, 1920,	6	2	8
On visit Sept. 30, 1920,	81	156	237

The following is a summary of the social service work done during the year under the direction of Miss Marie L. Donohoe:—

	Males.	Females.	Totals.
Total number of cases considered during the year:—	293	402	695
(a) New cases,	185	234	419
(b) Renewed cases,	34	77	111
(c) Continued cases,	52	86	138
(d) Outside cases,	3	4	7
(e) Cases carried upon which no work was done,	19	1	20
Sources of new cases:—			
(a) Referred by physicians,	71	135	206
(b) Referred by other agencies,	44	32	76
(c) Referred by relatives or friends,	2	1	3
(d) Referred by patients' own initiative,	3	5	8
(e) Selected by social worker,	64	61	125
Total,	185	234	419
Purposes for which new cases were referred:—			
(a) Medical history,	36	76	112
(b) Social history,	55	59	114
(c) Investigation of home conditions,	28	49	77
(d) Special investigation,	17	33	50
(e) Supervision while at home (general),	45	61	106
(f) Supervision while at home (special),	2	7	9
(g) Employment,	—	—	—
(h) Family assistance,	48	83	131
(i) Follow-up work,	10	10	20
(j) Family care department,	2	13	15
(k) Miscellaneous:—			
To locate and interest relatives,	4	4	8
To care for property and effects,	1	21	22
To procure interpreter,	1	2	3
For psychological test,	10	10	20
Soldier cases:—			
Compensation, insurance, vocational training, etc.,	62	—	62

	Males.	Females.	Totals.
Medical diagnoses of new cases: —			
1. Traumatic psychoses,	—	—	—
2. Senile psychoses,	8	16	24
3. Psychoses with cerebral arteriosclerosis,	10	7	17
4. General paralysis,	18	6	24
5. Psychoses with cerebral syphilis,	2	1	3
6. Psychoses with Huntington's chorea,	—	1	1
7. Psychoses with brain tumor,	1	—	1
8. Psychoses with other brain or nervous diseases,	—	1	1
9. Alcoholic psychoses,	26	14	40
10. Psychoses due to drugs and other exogenous toxins,	2	—	2
11. Psychoses with pellagra,	—	—	—
12. Psychoses with other somatic diseases,	2	12	14
13. Manic-depressive psychoses,	17	50	67
14. Involution melancholia,	4	9	13
15. Dementia præcox,	59	84	143
16. Paranoia or paranoid conditions,	13	17	30
17. Epileptic psychoses,	—	—	—
18. Psychoneuroses and neuroses,	4	2	6
19. Psychoses with psychopathic personality,	8	5	13
20. Psychoses with mental deficiency,	7	4	11
21. Undiagnosed psychoses,	4	5	9
22. Without psychosis,	—	—	—
Total,	185	234	419
Social problems in all cases: —			
(a) Disease: —			
Mental,	81	165	246
Physical,	21	34	55
(b) Poverty,	26	38	64
(c) Environmental problems,	36	59	95
(d) Moral problems,	16	11	27
Sex problems,	4	21	25
(e) Educational problems,	14	50	64
Illiteracy,	3	6	9
(f) Employment problems,	32	41	73
(g) Family problems,	19	50	69
(h) Legal problems,	41	7	48
(i) Criminality,	2	4	6
(j) Unclassed,	45	73	118
(k) No social problems known,	29	61	90
Nature of service rendered in all cases: —			
Medical and social histories,	40	86	126
Social investigations,	56	58	114
Home investigations,	31	59	90
Arrangements made for readjustment: —			
Home,	24	47	71
Work,	13	19	32
Recreation,	—	2	2
Church,	—	1	1
Legal aid,	32	4	36
Advice to patients,	27	85	112
Advice to relatives,	27	41	68
Family work,	22	49	71
No social service rendered,	30	69	99
Total number of visits,	313	827	1,140
To patients on ward,	40	125	165
To patients in community,	131	397	528
To relatives and friends of patients,	86	182	268
To other agencies,	56	123	179
Boarding patients: —			
Visits to boarding patients,	—	69	69
Patients placed during the year,	—	5	5
Patients replaced during the year,	—	2	2
Patients returned during the year,	—	6	6
Boarding homes investigated,	—	14	14
Disposition of social service cases: —			
Cases carried from 1919,	108	168	276
Cases discharged during the year,	65	105	170
Cases to be continued,	128	189	317
Cases closed,	49	88	137
Cases in care of other hospitals,	7	6	13
Cases in care of other agencies,	44	14	58

The routine work of the pathological laboratory may be summarized as follows: —

Autopsies,	88
Blood examinations: —	
Cell counts,	135
Smears,	80
Widals,	2
Cerebrospinal fluid examinations: —	
Gold sol, albumin, globulin, cells,	41
Microscopic examinations, bacteria, miscellaneous,	208
Microscopic sections made: —	
Number of cases,	19
Fecal analyses,	3
Sputum analyses,	54
Urinalyses,	527
Food examination, puffed rice,	1
Vaccines,	3
Wassermann reactions: —	
Blood serum,	246
Cerebrospinal fluid,	35
Blood serum (postmortem),	64
Cerebrospinal fluid (postmortem),	65
Venipunctures,	115
Lumbar punctures,	39
Neurosyphilis treatments: —	
Intravenous treatments with diarsenol: —	
Number treated,	48
Number of treatments,	571
Intramuscular injections of mercury salicylate: —	
Number treated,	36
Number of treatments,	110

The number of deaths during the year was 223, of which 88 came to autopsy, making the autopsy percentage for the year 39.46.

The following table shows the psychoses represented in cases coming to autopsy: —

Traumatic psychoses,	1
Senile psychoses,	18
Psychoses with cerebral arteriosclerosis,	25
General paralysis,	20
Psychoses with cerebral syphilis,	3
Psychoses with Huntington's chorea,	1
Psychoses with other brain or nervous diseases,	2
Alcoholic psychoses,	4
Psychoses with other somatic diseases,	3
Manic-depressive psychoses,	3
Involution melancholia,	2
Dementia præcox,	5
Paranoia or paranoid conditions,	1
Total,	88

In the following table the causes of death of these cases are shown:—

Bronchopneumonia,	16
Lobar pneumonia,	5
Pulmonary gangrene from unresolved lobar pneumonia,	1
Pulmonary gangrene,	1
Pulmonary tuberculosis,	5
Miliary pulmonary tuberculosis,	1
Acute suppurative pleuritis,	1
Acute purulent bronchitis,	1
Arteriosclerosis,	4
Cerebral arteriosclerosis,	2
Acute embolic softening of the brain,	1
Fatty degeneration of heart, with rupture,	1
Mitral and aortic stenosis with regurgitation,	1
Acute infective endocarditis following acute bronchitis,	1
Valvular heart disease. Mitral insufficiency,	1
Coronary sclerosis, with occlusion,	1
Chronic myocarditis,	3
General paralysis of the insane,	9
Cerebral hemorrhage,	2
Cerebrospinal meningitis,	1
Aneurysm of arch of aorta,	1
Pyelonephritis,	2
Pyelitis, double (renal calculi),	1
Acute cystitis and pyelitis,	1
Purulent cystitis,	2
Hemorrhagic gastro-enteritis,	1
Diarrhœa and enteritis,	1

Acute intestinal obstruction due to strangulated inguinal hernia,	1
Acute fibrinous peritonitis and pleuritis,	1
Cellulitis of right groin from purulent cystitis,	1
Pachymeningitis hemorrhagica interna,	1
Acute colitis,	2
Acute membranous colitis,	1
Acute infectious colitis,	1
Chronic interstitial nephritis,	3
Acute membranous ileitis,	1
Acute gastritis and ileitis,	1
Retroperitoneal abscess,	1
Miliary tubercular peritonitis,	1
Hemorrhage and shock from nephrectomy,	1
Carcinoma of bladder,	1
Carcinoma of stomach,	2
Carcinoma of uterus,	1
Acute arthritis (streptococcus),	1
Total,	88

The surgical work of the hospital has been largely in the charge of Dr. Irving J. Walker of Boston, the attending surgeon, who visits the hospital regularly and has performed numerous operations. The following is a summary of the more important surgical work of the year, including cases sent to the City Hospital for operation at that place: —

Amputations: —

Foot,	1
Thigh,	2
Appendectomy,	1
Dissection of cervical glands,	1
Fistula in ano (incision and curettage),	1
Gastroenterostomy,	1
Hernia, strangulated,	1
Herniotomy, double,	2
Hysterectomy,	2
Laparotomy, exploratory,	2
Ovarian cyst,	1
Ovariectomy with excision of ovarian cyst,	1
Removal of gallstones and gall bladder,	1
Removal of needle from hand,	1
Suppurative cervical adenitis (incision and drainage),	2
Trachelorrhaphy, colporrhaphy and perineorrhaphy,	2
Vulvovaginal cyst (incision and curettage),	1

The dental work of the hospital has been carried on actively during the last year by the resident dentist, Dr. Arthur W. Hicks. The following is a summary of the work of this department:—

Cleanings,	729
Extractions,	2,227
Fillings,	499
Plates,	9
Prophylaxis,	8
Treatments,	332
Patients treated,	1,627

The hydrotherapeutic work of the hospital has been carried on as usual in the East and West groups by the director of hydrotherapy, Dr. Rebekah B. Wright. Systematic instruction has been given to the members of the nurses' training school in this work.

The work of the training school for nurses has been carried on very successfully during the year just ended by the superintendent of nurses, Miss Mary Alice McMahon, R.N. The affiliation of our school with that of the Boston City Hospital has been a very advantageous arrangement to us, each nurse spending ten months at that institution acquiring a familiarity with general hospital work, which is a valuable supplement to the instruction carried on here. The graduating exercises of the training school for nurses were held on Friday evening, June 25, at the chapel in the East Group. The address of the evening was delivered by Dr. E. H. Cohoon, superintendent of the Medfield State Hospital, and the diplomas were presented to the graduating class by Dr. Hyman B. Swig, representing the Board of Trustees. The following nurses completed the prescribed course of instruction and received their diplomas on that occasion: Robert Leod Burns, Katherine Mary Agnes Donovan, Annie Louise Gale, Jennie Mae Mason, Jessie Anna MacInnis, Katherine MacIntyre, Jean Aitor MacIsaac, Winifred Helen MacKenzie, Lyla May Sherman, Ellen Marie Teele, Sadie Alice Thibedeau, Sarah Florence Vail. The junior class for 1920-21 consists of 6, the intermediate class of 28, and the senior class of 17. Six are now receiving their instruction for the intermediate year at the Boston City

Hospital. Nineteen graduates of our training school are now employed in the wards of the institution. The course of instruction has been very materially supplemented during the year, in accordance with the requirements of the Department of Mental Diseases. In the final examinations held by the training school committee at the completion of the work of the last session, the Boston State Hospital Training School stood first in the senior and second in the junior class, in the latter instance being only one-half of 1 per cent lower than the school holding the first place. The average for the senior class was 89.28, and for the junior class, 88.93. An alumnae association has been formed by the graduates of the Boston State Hospital Training School this year, and this association affiliated with the Massachusetts State Nurses Association.

Staff meetings have been held as usual during the year, alternating between the East and West groups. Efforts have been made to present all new admissions at staff meetings, as well as all cases about to leave the hospital on visit or cases to be discharged.

OCCUPATIONS AND INDUSTRIES.

Occupational work has been materially extended in the ward service during the year, and an occupational therapist is now on duty in each of the two groups of the hospital. It is to be hoped that at least two more workers can be added during the coming year, as it has been found that two persons cannot properly look after the necessary instruction of patients. It has been difficult to obtain occupational therapists at the rate of pay authorized, as better inducements are offered in the public service elsewhere. An attempt has been made to interest in occupations of some kind all of the patients in the wards who are unable for any reason to go to the industrial rooms. Ward occupations have been carried on during the year in buildings A, B, C and D in the East Group, and buildings A, B, C and D in the West Group.

Industrial work in the East Group consists of basketry, rug-making, weaving, lace making, embroidery, knitting, crocheting, sewing, mending, etc. About 100 patients are occupied in the industrial room in the East Group daily. The estimated value of the articles made during the year was \$9,357.66. The

industrial work for men is carried on entirely in the West Group, in the basement of Building B. This work includes shoe repairing, the manufacture of toweling, shirting, overalls, men's stockings, repairs to rubber materials, mattress making, mattress renovating, the manufacture of various kinds of brushes, brooms, coat hangers, hats and various other articles. The value of articles produced during the year is estimated at \$12,756.21. In addition to the work of the industrial rooms, as mentioned above, the value of articles produced during the year in the wards was \$931.40, making a total of \$23,045.27 for articles produced in the occupational and industrial departments of the hospital.

AGRICULTURAL ACTIVITIES OF THE YEAR.

Mr. J. Dana Tilton, head farmer, left the hospital service on Jan. 21, 1920. It was not possible for us to obtain the services of any properly qualified person to fill this position until November 1, at which time Mr. Lawrence Olsen was appointed. Mr. Olsen graduated from an agricultural school in Denmark, is a naturalized American citizen, and has had fifteen years of experience on private estates in this country.

Owing to the fact that it has not been possible to give the agricultural work of the institution proper supervision during the year, the general shortage of farm employees, the unfavorable weather, etc., the farm production for the year has not been at all satisfactory. There was a total of 147.36 acres under cultivation. This consisted of 25.67 acres devoted to field crops, and 28.5 to gardening, in addition to which there were 88.19 acres of meadowland and 5 of orchards and small fruits. The estimated value of farm products during the year was \$18,425.69.

I wish to call attention again to the necessity of purchasing a farm for the hospital. The hospital site consists of only 232 acres. The forty buildings belonging to the institution take up a large amount of this space, and leave but comparatively little land available for farming and gardening. It should be remembered that a considerable amount of land is necessary for the recreation of patients. The future development of the hospital will not leave much room available for farming.

nor is it possible to purchase any more land in this vicinity at any reasonable cost. The report of the agricultural expert of the Department of Mental Diseases, as was noted last year, shows that an institution of the size of the Boston State Hospital should cultivate approximately 700 acres of land. I wish to again call attention to the necessity of purchasing several hundred acres of farm land within ready reach of the hospital. The per capita cost of maintenance would be materially lowered if a farm colony could be established and extensive agricultural work carried on at some place not too distant. The increasing number of buildings has reduced the amount of space available for gardening purposes. If we could establish a farm in the country it would be possible for us to maintain a dairy, raise poultry and furnish garden products at a considerable saving. Farm and gardening activities cannot be carried on on a hospital site so limited in size and located, as this one is, in a large city.

FINANCIAL STATEMENT.

The Legislature made the following appropriations for new construction during the session of 1919, as was shown in the annual report of last year: for building, furnishing and equipping a home to accommodate 90 nurses, a sum not exceeding \$80,000; for building, furnishing and equipping a congregate dining room for the West Group, a sum not exceeding \$100,000; for building, furnishing and equipping a congregate dining room for the East Group, a sum not exceeding \$110,000. Under the provisions of the statutes these amounts were, as usual, to be expended under the direction of the Department of Mental Diseases. Owing to the increased cost of construction, it was found impossible to complete these buildings with the money originally appropriated for the purpose. The following supplemental appropriations were made by the Legislature at its last session: for the nurses' home in the East Group, \$24,000 (chapter 255 of the Acts of 1920) and \$33,500 (chapter 629 of the Acts of 1920), making a total, including the original appropriation, of \$137,500; for the kitchen and dining room building in the West Group, \$60,000 (chapter 225 of the Acts of 1920) and \$50,000 (chapter 629

of the Acts of 1920), making a total of \$210,000 available; for the kitchen and dining room building in the East Group, \$42,000 (chapter 629 of the Acts of 1920), making a total of \$152,000; for the male infirmary building in the West Group, \$16,000 (chapter 629 of the Acts of 1920), making a total of \$401,000 available.

The contract for the kitchen and dining room building in the East Group was awarded last year. The building is practically completed and will be ready for occupancy on or before Jan. 1, 1921. The upper floor will furnish dining room accommodations for 500 female patients. The lower floor will furnish accommodations for a maximum of 100 persons in the employees' dining room and 150 in the nurses' and attendants' dining room. The north wing of the basement floor will provide accommodations for 100 male working patients from the West Group. It also includes a smoking room, as well as coat and toilet rooms. This will be a great accommodation for the West Group men who are working in the East Group, as they have had no proper provision made for them heretofore. In the rear of the building, and connected with it by a corridor, is a commodious one-story kitchen, with a scullery, refrigerating rooms, etc. This will provide ample kitchen accommodations for the East Group. This is the first kitchen and dining room building, serving that specific purpose, ever erected for the hospital.

Contracts have been awarded by the Department of Mental Diseases for the nurses' home in the East Group and the kitchen and dining room building in the West Group. The East Group nurses' home is now under roof, and should be ready for occupancy early in the spring. It will greatly relieve the overcrowding and lack of accommodations available for ward employees, and should make it easier for us to employ nurses and attendants in the future. The kitchen and dining room building in the West Group is well under way, should be under roof by winter time, and will probably be ready for occupancy early in the spring. The male infirmary building in the West Group, which will be known as Building F, has been completed and was occupied on September 30. This building houses 338 patients, with a maximum capacity of 354. The

first floor is used exclusively for bed patients, and includes three wards, one of which accommodates 22 patients and the other two 42 each. The second floor includes two wards of 58 patients each and a central wing housing 18 employees. The second floor of the administration portion of the building is used for quarters for medical officers. The third floor includes two wards of 58 beds each and a dining room accommodating 248 patients. There is also a well-equipped and modern operating room on the third floor. Fireproof construction is used throughout the building, the floors being of concrete and covered with linoleum. Taking everything into consideration, it represents the best type of construction used in any of the hospital buildings.

The maintenance expenditures of the hospital for the year were as follows: —

	Amount expended.	Per Capita.	Percentage of Total.
Personal services,	\$227,326 83	\$131 63	33.02
Travel, transportation and office expenses, . .	10,934 58	6 33	1.59
Food,	206,675 58	119 67	30.02
Religious instruction,	1,773 33	1 02	.25
Clothing and materials,	30,599 62	17 71	4.44
Furnishings and household supplies,	49,459 28	28 63	7.19
Medical and general care,	16,285 05	9 42	2.36
Heat, light and power,	100,168 85	58 01	14.55
Farm and stable,	12,223 94	7 07	1.77
Grounds,	12,949 24	7 49	1.88
Repairs, ordinary,	18,149 55	10 50	2.65
Repairs and renewals,	1,986 18	1 15	.28
Totals,	\$688,532 03	\$398 63	100.00

Based on the average daily population of the hospital department (1,726.96), the per capita cost of maintenance for the year was \$398.63, or \$7.66 per week. The per capita cost for the year 1919 was \$324.86, or \$6.247 per week. It is hardly necessary to explain that the difference in per capita cost is entirely due to the increase in prices paid for commodities generally. The fact that the hospital has a larger infirmary population and a greater number of bed patients than other

institutions is, of course, a factor. Our lack of agricultural facilities and the absence of a dairy mean a considerable increase in the cost of maintenance. The type of buildings erected heretofore is a material factor in the cost of personal service. The old buildings, erected many years since, are made up of small units, few dormitories accommodating more than 6 patients, and consisting very largely of single rooms. This necessitates a large amount of supervision on the part of ward employees, which can be avoided just as well as not in certain buildings where only custodial care is required, and where patients can be housed in larger dormitories and in day rooms. No buildings designed exclusively for purely custodial care of patients in considerable numbers have ever been erected at the hospital.

GENERAL OPERATIONS FOR THE YEAR.

The appointment of Miss Adeline J. Leary to the position of treasurer, to succeed Mr. Fred L. Brown, deceased, was approved by the Board of Trustees on Nov. 17, 1919. Miss Leary has been a bookkeeper in the treasurer's office for some time, and has been connected with the institution for many years.

In response to an invitation issued by the Board of Trustees, over 50 members of the Legislature representing Suffolk County visited the hospital on January 14 and made a general inspection of the buildings and wards of both groups. They were accompanied by Dr. George M. Kline, representing the Department of Mental Diseases. Dr. Kline and Dr. Lefavour, chairman of the Board of Trustees, discussed the needs of the hospital for the coming year.

An additional dietitian and one more occupational therapist were authorized during the year, so that we now have a dietitian and an occupational therapist in each group of the hospital. This represents a great improvement over existing conditions, but we need several more occupational therapists, as many of our patients on the wards have no means of occupying themselves in any way.

The institution was visited by the public institutions committee of the Legislature on Thursday, January 29. They were accompanied by Dr. Kline, Commissioner of the Depart-

ment of Mental Diseases. The committee visited both the East and West groups, as well as the psychopathic department.

Great difficulties were encountered during the month of February, 1920, as a result of the heavy snowstorms which were general throughout New England. Transportation was seriously interfered with, and it was very difficult to get coal for the hospital. There were times when there was not a sufficient amount of coal on hand to last twenty-four hours. It was impossible for a period of several weeks to get conveyances of any kind from the East Group to the West. The electric car service was suspended for several days on Blue Hill Avenue, and it was difficult for visitors to reach the hospital. Transportation by means of trucks was impossible for a period of about six weeks, beginning February 6. All food supplies were brought to the institution on sleds.

A marking machine was installed in the storeroom during the year. This will be of great assistance in marking the ward linen, and will save a great deal of time and labor.

The wooden wainscoting and wooden flooring has been removed from all of the single rooms in the lower floor of building B in the East Group during the year, the wainscoting being replaced by hard plaster and the wooden flooring by cement. This has made these rooms much more sanitary and improved their appearance greatly.

Laundry tubs and ironing boards have been installed in the basement of the nurses' home in the West Group, which will be a great convenience to the nurses and attendants in that building.

Under the provisions of chapter 224 of the Special Acts of 1919, the street laying-out department of the city of Boston has used 561 square feet of hospital property for the purpose of widening the four corners at the intersection of Canterbury and Walk Hill streets.

A moving-picture machine of the latest type was installed in the East Group chapel during the year. This will be greatly appreciated by the patients, who enjoy the moving pictures perhaps more than any other form of entertainment.

Extensive repairs to the steam lines between pit No. 24 and pit No. 25, connecting the East and West groups, have been

necessary, and were completed during the summer months. The magnesia filling used as insulation for the conduits has been removed and standard pipe covering installed in its place. This will result in some saving of fuel and a considerable loss in the radiation of heat due to imperfect insulation. It was necessary to make repairs of the same nature in the steam line running from the rear of the new F building in the West Group to Building G.

The annual field day exercises of the hospital, held on the baseball grounds at the West Group on July 5, were very much enjoyed by the patients and participated in by many of them.

It was necessary to make extensive repairs to the sewer line connecting the F, G and H buildings and the farmhouse in the West Group with the metropolitan sewer. It will be necessary to replace this during the coming year with an iron pipe of larger size, iron being necessary on account of the nature of the soil.

The shortage of labor which, unfortunately, has been general, prevented us from completing the road between the East and West Groups during the summer.

The removal of the hill on the corner of Harvard and Morton streets was not finished for the same reason.

The interior of Buildings D, F and G in the East Group, the woodwork on the exterior of Building B in the West Group, the farmhouse, several of the wards in the new F building, and the window guards in Buildings A and G in the West Group were painted during the summer. Scrim curtains were placed in many of the wards in the East Group.

The completion of Building F in the West Group, which was occupied on Sept. 30, 1920, made considerable grading necessary. A cement walk was installed extending from the attendants' cottage, in the West Group in front of the new F building, to Building G.

A number of trees were planted in front of the new F building, as well as a Chinese privet hedge. The grounds surrounding the new building now present a very attractive appearance.

The occupancy of this building has made it possible to

remove all the male patients from Building B in the West Group. This will now be occupied entirely by women, and will give us excellent accommodations hereafter for patients of the infirmary type.

Arrangements have now been completed for filling the pond in the East Group, authority having been obtained from the city to have ashes deposited in this place by a contractor for the Dorchester district. To insure the proper surface drainage of the East Group after this is done, it has been necessary for us to install a 6-inch Akron pipe drain connecting the present pond with the Canterbury Branch of Stony Brook, this drain running between the present East Group barn and the administration building. Attempts on the part of several patients to commit suicide in the pond during the past year have emphasized the necessity of disposing of this source of danger.

Attention should be called again to the desirability of acquiring the 150,000 square feet of land belonging to the Forest Hills Cemetery, and located south of Canterbury Street, adjoining the West Group. This is the only part of the site, bounded by Canterbury Street on the north, Harvard Street on the south, Morton Street on the east and Walk Hill Street on the west, that has not as yet been acquired by the State. The buildings on this land could be used to very good advantage, and would facilitate the removal of the barns and other objectionable structures adjoining the administration building in the East Group. The desirability of acquiring this land was referred to by the joint special legislative committee on public institutions in their report of March, 1920, as shown in Senate Document No. 450.

Further reference should be made at this time to the Canterbury Branch of Stony Brook. Although the channel of this brook was cleaned out by the city about one year ago, it is already overgrown with weeds, and will soon be obstructed as badly as ever. The brook not infrequently overflows its banks, and 30 to 40 acres of hospital land have been covered with water at times. It occasionally gets into the steam conduits, and has flooded the pump room of the power house to a depth of a foot and a half. Such an overflow may at any time render it impossible to provide heat for the West Group,

which now has a capacity of over 1,500 beds. This condition of affairs should be remedied as soon as possible. The conduit built by the city extends up to the point where the brook enters the hospital property on Harvard Street. The brook runs through the grounds for a distance of approximately 4,500 feet. The conduit should be extended for at least 2,200 feet, to the point where the hospital road crosses the brook in the West Group. This would reclaim 30 or 40 acres of valuable land, worth approximately \$260,000. The work of enclosing this brook as originally undertaken by the city is incomplete, and the present condition was intended only as a temporary arrangement. The joint special committee of the Legislature, reporting on public institutions in 1920, referred to this as a serious menace requiring immediate attention.

NEEDS OF THE HOSPITAL FOR THE COMING YEAR.

As the construction deemed necessary for the coming year is to be determined by the Department of Mental Diseases, the following items were submitted some time since for consideration:—

1. Administration building and staff quarters,	\$250,000
2. Superintendent's house,	46,000
3. Retaining wall, kitchen building, East Group,	28,000
4. Addition to refrigerating room, and additional refrigerating machinery,	34,500
5. Repairs to sewer, West Group,	7,500
6. Sewer pipe for Canterbury Branch of Stony Brook,	2,550
7. New watch clock system for West Group,	4,000
8. Pavement in front of power house,	10,000
9. Addition to laundry building and new laundry machinery,	20,500
10. Addition to garage,	4,500
11. Fencing,	10,000
12. New greenhouse,	7,600
13. Paint shop,	8,000
14. Stokers for eight boilers,	30,000
15. Automatic CO ₂ and draft recorders,	4,200
16. Extension to sewer, water and steam lines,	19,000
Total,	<hr/> \$486,350

1. *Administration Building and Staff Quarters.* — The offices of the institution are now located in an old building purchased by the city of Boston about fifty years ago for use as an almshouse. This is a two and one-half story building constructed of wood throughout, contains numerous exposed electric wires, and has several wooden stairways running from the basement to the attic. This building is located within fifty yards of a large wooden barn containing hay, and is surrounded by other non-fireproof structures, the nearest being the laundry, chapel and a non-fireproof building now used as a nurses' home. Its presence in this location is a serious menace, and in case of fire would threaten the loss of the entire East Group. The building now houses over 50 employees, 30 of whom are living in the attic. The offices of the hospital should be in a central location. It is very inconvenient for relatives and friends of the patients to come from Walk Hill Street to the present administration building. The hospital has now reached a stage of development where an administration building is urgently needed. We do not propose to demolish the old wooden building now used for office purposes, but suggest removing it to other locations where it can be remodeled and used for housing employees, etc. In erecting an administration building we propose to provide additional accommodations for the staff on the second floor. Attention should be called to the fact that no new construction has ever been provided at the institution as yet for the exclusive use of the medical officers of the hospital.

2. *Superintendent's House.* — No superintendent's residence has ever been built at the hospital. The only house used for that purpose was the remodeled Pierce farmhouse, acquired by the city in 1893. This building is now being used for other purposes. The arrangement of the house is not such as to render it suitable for a superintendent's residence. It has been necessary for the Board of Trustees to rent a house for the superintendent. The lease on this house will expire by the time a building can be erected on the hospital premises. The annual outlay involved in this rental, including heat, light, etc., represents the interest on a considerable investment. The cost may be increased at the expiration of the present lease.

3. *Retaining Wall, Kitchen Building, East Group.* — When the contract was awarded for the kitchen and dining room building in the East Group, the appropriation was not, unfortunately, large enough to provide for the construction of a retaining wall in front of the building. This structure is located several hundred feet in the rear of the present B Building, separated from it by a roadway, and occupies an entirely different level, being probably 20 feet below the grade of the former. For the protection of the building it will be necessary to erect a concrete retaining wall in front of it. This will insure the proper lighting of the basement, and prevent the surface drainage of the hill immediately above from injuring the building.

4. *Addition to Refrigerating Room and Additional Refrigerating Machinery.* — The present refrigerating plant has been in use for many years. The capacity of the hospital has been doubled since this plant was installed. An additional load will be carried when the new kitchen building is opened this winter. It has been very difficult to make ice enough for the hospital for some time, owing to the limited capacity of this plant. This is an urgent necessity.

5. *Repairs to Sewer, West Group.* — Several hundred feet of the West Group sewer caved in during the summer, as a result of the fact that it was not properly supported. It was laid in quicksand. This sewer has to supply several additional buildings erected since it was installed. Temporary repairs have been made, which will make it possible for us to use this sewer until an appropriation can be obtained for a new one. The consulting engineer for the Department has recommended the replacement of this 8-inch Akron pipe sewer by 1,000 feet of 12-inch iron pipe.

6. *Sewer Pipe for Canterbury Branch of Stony Brook.* — The hospital has been making efforts to remove the hill at the corner of Morton and Canterbury streets. This has been a dangerous corner for many years. The material obtained will be very valuable in the completion of the new road we are now building between the East and West groups. The grading to be done makes it necessary to enclose the branch of Stony Brook now entering the hospital property from the Forest

Hills Cemetery land to the north. We will need about 430 feet of 30-inch Akron pipe for this purpose.

7. *New Watch Clock System, West Group.* — We now have three watch clock recorders in the West Group, with a new building going up. None of the present recorders have sufficient capacity to take care of this new building. An overhead cable has been used in some places. The wiring in two of the buildings is very old and was too light for the work originally. It should be replaced. The proper thing to do under the circumstances is to install one central recorder of sufficient capacity to take care of the entire West Group, locating all wires underground. This will cost about \$4,000. If done now it will do away with the necessity of putting in a recording system in the new building.

8. *Pavement in Front of the Power House.* — There is a granite block pavement in front of the laundry at the present time. This is not laid in concrete and will have to be taken up soon. When relaid this should be extended to the front of the power house and carried as far as the storehouse. The heavy trucks now delivering coal to the power house render the installation of some kind of a serviceable pavement necessary at the earliest possible moment. The cheapest pavement available will be concrete, at an estimated cost of \$10,000.

9. *Addition to Laundry Building and New Laundry Machinery.* — The hospital has increased greatly in size since the erection of the present laundry. Additional space is very much needed. Some of the equipment has been in use for many years. We are badly in need of new dryers, mangles and other machinery. The occupancy of the new building, with a capacity of about 350 patients, renders it desirable to get this laundry machinery at as early a moment as possible.

10. *Addition to Garage.* — No garage has ever been built for the hospital. We are using the old West Group boiler house, remodeled for this purpose, at the present time. It is, however, not large enough, and additional space is badly needed.

11. *Fencing.* — The hospital has on its present site 233 acres of land unprotected by suitable fencing at any place. As a result of this, the grounds are overrun by small boys from the neighborhood. We cannot police the premises, and many of

the vegetables which we are attempting to raise in our gardens are stolen. We have suffered large losses in this way. We are also unable to prevent strangers from approaching our buildings and annoying the patients, as they do very frequently. A schoolhouse has been erected at a point immediately across the street from the building containing our most destructive, noisy and violent women. We cannot keep the school children out of our property. We wish to erect an angle iron fence at least 5 feet high. We are, of course, aware of the fact that the entire hospital property cannot all be fenced in at once, owing to the expense involved, and would suggest appropriating \$5,000 or \$10,000 each year for this purpose.

12. *New Greenhouse.* — The old greenhouse in the rear of the present administration building in the East Group is in a very dilapidated condition and is liable to fall down. A new one should be built as soon as possible in another location.

13. *Paint Shop.* — The present paint shop is located in the basement of the laundry building, the third floor of which is used as an industrial room. This is a violation of the laws of the State. A separate building should be erected for the paint shop as soon as possible. The estimated cost of such a structure is \$8,000.

14. *Stokers for Eight Boilers.* — At the present time we have in the boiler house two boilers with a Massachusetts rating of 108 horsepower, and six with a rating of 126 horsepower. The radiating surface now heated in the institution is 141,036 square feet. A building accommodating about 350 patients has just been completed, and we have now under process of construction a kitchen and dining room building in the East Group, a nurses' home in the East Group, and a kitchen and dining room building in the West Group. It is only a question of time before additional boilers will have to be provided. The efficiency of the present plant can be enormously increased by the use of stokers, which would do away with the necessity of several additional firemen.

15. *Automatic CO₂ and Draft Recorders.* — These were recommended by the Tenney Engineering Company two years ago. Our budget did not, however, cover the cost of installing this apparatus, and we are accordingly asking for \$4,200 for that purpose this year.

16. *Extension to Sewer, Water and Steam Lines.* — When a new administration building is erected an extension to the sewer, water and steam lines of the institution will be necessary. Provision should be made for this at as early a moment as possible. When completed this extension will provide for several other buildings which may be necessary at some future time.

II. THE PSYCHOPATHIC DEPARTMENT.

The Psychopathic Hospital completes the first chapter of its history, that of a department of the Boston State Hospital, with the conclusion of the present year, as a result of the following law enacted by the Legislature at its last session: —

SECTION 1. The psychopathic department of the Boston state hospital is hereby made a separate state hospital for the care of the insane and shall be subject to all provisions of law applicable to such state hospitals. Its name shall be the Boston Psychopathic Hospital.

SECTION 2. On or before the thirtieth day of November in the current year the governor, with the advice and consent of the council, shall appoint a board of trustees of the Boston psychopathic hospital, consisting of seven members, of whom five shall be men and two shall be women. The initial members of said board shall be appointed for terms of one, two, three, four, five, six and seven years respectively from the first Wednesday in February, nineteen hundred and twenty, or until their successors are appointed and qualified. Thereafter as their several terms expire, the governor shall appoint a trustee for the term of seven years, and shall fill any vacancy for the unexpired term. The said trustees shall have all the powers and duties in respect to the Boston psychopathic hospital which the present trustees of the Boston state hospital now have in respect thereto, and shall be subject to all provisions of law relating to trustees of state hospitals for the care of the insane.

It is worthy of note that the Boston State Hospital, at the time of its establishment the first municipal institution exclusively for mental diseases in America, was the first institution in the United States to make provisions for a separate psychopathic department, which was opened on June 24, 1912.

At the conclusion of this first period in its history it will perhaps not be out of order to recall the objects and purposes for which it was founded, as shown by a quotation from the twelfth annual report of the Massachusetts State Board of Insanity: —

The Psychopathic Hospital should receive all classes of mental patients for first care, examination and observation, and provide short, intensive treatment of incipient, acute and curable insanity. Its capacity should be small, not exceeding such requirement.

An adequate staff of physicians, investigators and trained workers in every department should provide as high a standard of efficiency as that of the best general and special hospitals, or that in any field of medical science.

Ample facilities should be available for the treatment of mental and nervous conditions, the clinical study of patients on the wards, and scientific investigation in well-equipped laboratories, with a view to prevention and cure of mental disease and addition to the knowledge of insanity and associated problems.

Clinical instruction should be given to medical students, the future family physicians, who would thus be taught to recognize and treat mental disease in its earliest stages, when curative measures avail most. Such a hospital, therefore, should be accessible to medical schools, other hospitals, clinics and laboratories.

It should be a center of education and training of physicians, nurses, investigators, and special workers in this and allied fields of work.

Its out-patient department should afford free consultation to the poor, and such advice and medical treatment as would, with the aid of district nursing, promote the home care of mental patients.

Its social workers should facilitate early discharge and after-care of patients, and investigate their previous history, habits, home and working conditions and environment, heredity and other causes of insanity, and endeavor to apply corrective and preventive measures.

The specialized functions of the department were well defined by the director of the department in one of the previous annual reports, as follows: —

The institution is not a modified or sublimated form of receiving ward for a great district hospital. The great district hospital, of which the Psychopathic Hospital is a department, has, in point of fact, its own receiving ward planned upon proper modern lines, and is adequately equipped for the reception of insane persons committed to the institution by the operations of the ordinary probate court processes. The Psychopathic Hospital, on the other hand, is an institution which does not receive cases committed by the probate court process. The first requirement in understanding the Psychopathic Hospital's relation to the community is an understanding that the hospital is not built for the reception of medicolegally insane persons who have been determined to be insane upon the assurances of two qualified physicians. It is true that all our patients are admitted under some form of law, but very few of them are admitted by court processes, and those few are sent to us for highly special determina-

tions which the large staff and special equipments of the hospital are enabled to make more quickly and effectively than the State institutions for the great group of ordinary committed cases.

The functions of the psychopathic department were modified somewhat by the establishment of the Massachusetts State Psychiatric Institute in 1919. The objects of this institute as defined by the Commission on Mental Diseases were:—

1. To make psychiatric and pathological researches and investigations.

2. To give instruction in psychiatry, neurology, pathology, psychology and social service, with special reference to instruction in the nature, causes, treatment and results of mental diseases and defects.

3. To promote the advancement of mental hygiene.

4. To encourage scientific work in the institutions.

5. To co-ordinate publications of a scientific nature.

6. To carry on the routine and special duties of the pathological service of the Commission.

7. To supervise and correlate the clinical and laboratory work of the institutions under the Commission.

This left the psychopathic department with purely hospital functions, and relieved it of any responsibility for scientific research or instruction. As constituted at the present time, it may be described as including (1) the ward service, (2) the out-patient service, (3) the social service and (4) the psychological service.

The institution differs from other psychopathic hospitals in being an establishment essentially of the temporary care type, not designed primarily either for the reception or for the care and custody of obviously committable cases, but rather for the observation and treatment of incipient mental diseases as well as psychopathic conditions not properly coming within the purview of the State hospitals. It has been the policy of the courts to commit direct to State institutions for the insane all cases showing clearly the necessity of an extended period of hospital treatment. The fact that only 40 per cent of the temporary care cases have been committed shows that a preliminary period of observation before these cases are definitely disposed of is unquestionably warranted.

The administration of the department has been under the immediate supervision of a chief executive officer with two assistants, an executive officer and an assistant executive officer. The medical service has been under the immediate supervision of a chief medical officer, who has had under his direction two medical officers, four assistant medical officers and two internes. The out-patient service is under the immediate direction of a chief medical officer, with one medical officer and an assistant medical officer under his charge. The social service has been under the immediate direction of the chief of social service, with three paid and numerous student social workers under her supervision. The psychological service has been headed by a chief psychologist, with one assistant psychologist and an interne.

This plan of organization was designed for the specific purpose of providing the highest type of modern hospital care for mental diseases. Nothing but the welfare of the patient was taken into consideration. This was made possible by the establishment of the psychiatric institute, all responsibility for scientific research and instruction being an essential part of its functions. The history of the psychopathic department, which has been in operation since June, 1912, has, I think, demonstrated conclusively that in an institution of this type, handling nearly 2,000 patients a year in its wards, and over 3,450 in the out-patient service, the entire time of the medical staff must be devoted to the care of the patients unless their welfare is to be made secondary to some other consideration. They cannot carry on research work, or take part in the instruction of medical students, and give their patients the care and attention they should receive and to which they are entitled.

A general rearrangement of the medical service was made during the past year. The wards are now divided into two services, one for men and one for women; a medical officer, two assistant medical officers and an interne being assigned to each service. Entire responsibility for the direction of the medical service as a whole has been delegated to the chief medical officer. This provides, for the first time, for some definite centralization of responsibility for the operation of the

ward service. It has already resulted in a material increase in efficiency and the establishment of much higher standards of medical care.

The history of the psychopathic department as a department of the Boston State Hospital should not be brought to a close without some reference to the death of Dr. Elmer E. Southard, who was the director of the Psychopathic Hospital from the time of its opening in 1912 until May 19, 1919, when he resigned for the purpose of devoting his entire time and energies to the development of the newly created Massachusetts State Psychiatric Institute. His death occurred quite suddenly in New York City on Feb. 8, 1920, after an illness of a few days, incurred while attending the meetings of the National Committee for Mental Hygiene. After his graduation at Harvard University in 1897 he entered the medical department, graduating in 1901, and received the degree of A.M. in the following year. He was for some time an instructor in neuropathology at the Harvard Medical School, and became an assistant professor in 1906. He occupied the Bullard professorship of neuropathology from the date of its establishment in 1909 to the time of his death. His association with the State hospital service dated from the time of his appointment as pathologist at the Danvers State Hospital in 1906. He became the pathologist to the Massachusetts State Board of Insanity three years later. During the time of his connection with the psychopathic department as its director he received general recognition by the profession as being one of the foremost men in psychiatry and neuropathology in this country. He was associated in an editorial capacity with the "Journal of Nervous and Mental Disease," the "Psychiatric Bulletin," the "Journal of Clinical Laboratory Medicine," and many other publications of a similar nature. He was a member of the American Medico-Psychological Association, the American Medical Association, the American Academy of Arts and Sciences, the American Neurological Association, the American Association of Pathologists, and many other scientific societies. He was president of the American Medico-Psychological Association in 1919, chairman of the Section for Nervous and Mental Diseases of the American Medical Association, and was elected president

of the Boston Society of Psychiatry and Neurology shortly before his death. His contributions to medical literature were too numerous to mention. The better known of these perhaps were his works on neurosyphilis and his recently published book on shell shock and other neuropsychiatric conditions which became of so much importance during the late war. Dr. Southard gave up all of his Boston activities in 1918 to accept a commission in the army, and was appointed major in the chemical warfare service. He was an active member of various clubs, and made his home in Cambridge, where his wife, Dr. Mabel Fletcher Austin, and three children still reside.

Although by experience and training essentially a pathologist, Dr. Southard's prominence in the profession has been primarily that of a clinician and a teacher. Largely as a result of his work, psychiatric social service has received the general recognition which it so thoroughly deserves. As the director of the psychopathic department of the Boston State Hospital he attracted students from all parts of the United States, and associated with himself men who have since become prominent factors in the psychiatry of this country. His death was a loss not only to the State of Massachusetts but to the medical profession.

MOVEMENT OF POPULATION.

The census on Sept. 30, 1919, was as follows: in the wards, men, 45, women, 34, total, 79; at home on visit, men, 29, women, 44, total, 73; making a total of 152, 74 men and 78 women, in the custody of the psychopathic department.

Nine hundred and thirty-six men and 817 women, a total of 1,753, were admitted during the year. This included the following: first admissions, men, 274, women, 263, total, 537; readmissions, men, 98, women, 69, total, 167; temporary care admissions, men, 564, women, 485, total, 1,049; transfers from other institutions, men, none, women, 1, total, 1; and transfers from the hospital department, men, 2. Twelve hundred and ninety-six cases, including 700 men and 596 women, were discharged during the year; 3 men and 6 women, a total of 9, were transferred to other institutions; and 29 men and 25 women, a total of 54, died during the year. One

hundred and eighty-one men and 170 women, a total of 351, were transferred to the hospital department.

The census on Sept. 30, 1920, was as follows: in the wards, men, 41, women, 42, total, 83; at home on visit, men, 58, women, 57, total, 115; making a total of 198, 99 men and 99 women, in the custody of the psychopathic department.

The total number of cases treated during the year was 1,922, 1,019 men and 903 women.

The average daily number of patients for the year was: men, 84.86, women, 87.09, total, 171.95. The average daily number in the wards was: men, 41.42, women, 43.84, total, 85.26, or 49.65 per cent of the whole number. The average daily number at home on visit was: men, 43.44, women, 43.25, total, 86.69, or 50.35 per cent. The average daily number of committed cases was: men, 17.84, women, 18.36, total, 36.20, or 42.45 per cent of the number in the wards. The average daily number of voluntary cases was: men, 6.52, women, 9.25, total, 15.77, or 18.50 per cent. The average daily number of temporary care cases was: men, 17.06, women, 16.23, total, 33.29, or 39.05 per cent. The average daily number of epileptics was: men, .72, women, .49, total, 1.21, or 1.42 per cent. The average daily number held under complaint or indictment was: men, 1.56, women, .37, total, 1.93, or 2.27 per cent.

The recovery rate, exclusive of temporary care, based on the number of first admissions, was 1.11 per cent; based on the total number cared for during the year, .31 per cent; and based on the average daily population, 11.54 per cent.

The death rate, exclusive of temporary care, based on the number of first admissions, was 3.91 per cent; based on the total number cared for during the year, 1.09 per cent; and based on the average daily population, 24.63 per cent.

The recovery rate of temporary care cases, based on the number of first admissions (872), was 3.67 per cent; based on the total number cared for during the year, 2.97 per cent; and based on the average daily population (33.29), 96.12 per cent.

The death rate of temporary care cases, based on the number of first admissions, was 3.78 per cent; based on the total number cared for during the year, 3.06 per cent; and based on the average daily population, 99.13 per cent.

Attention should be called to the fact that the recovery and death rates of an institution of the temporary care type are of comparatively little significance.

Of the first admissions, exclusive of temporary care, 22, or 40.97 per cent, were foreign born, and 409, or 76.16 per cent, were of foreign parentage on one or both sides. One hundred and ninety, or 35.38 per cent, were aliens. The average age on admission was 39.5 years, 65, or 12.10 per cent, being sixty years or over. Thirty-seven, or 6.89 per cent, were under twenty-one years.

Of the 537 first admissions, exclusive of temporary care, the cause was unascertained or no cause given in 390 cases, or 72.62 per cent. In the 147 cases where a definite cause was assigned, the etiological factors were as follows: alcoholism, 6, or 4.08 per cent; arteriosclerosis, 17, or 11.65 per cent; involutional changes, 2, or 1.36 per cent; traumatism, 1, or .68 per cent; senility, 24, or 16.32 per cent; and syphilis, 53, or 36.06 per cent. There was a family history of mental disease in 32, or 6 per cent, and a family history of nervous disease in 7, or 1.3 per cent, of these cases.

The forms of mental disease shown by the first admissions, exclusive of temporary care, briefly summarized, were as follows: senile psychoses, 24, or 4.47 per cent; psychoses with cerebral arteriosclerosis, 25, or 4.65 per cent; general paralysis, 54, or 10.06 per cent; psychoses with other brain or nervous diseases, 12, or 2.12 per cent; alcoholic psychoses, 11, or 1.94 per cent; psychoses with other somatic diseases, 18, or 3.17 per cent; manic-depressive psychoses, 47, or 8.75 per cent; involution melancholia, 9, or 1.59 per cent; dementia præcox, 142, or 26.44 per cent; paranoia or paranoid conditions, 18, or 3.17 per cent; epileptic psychoses, 9, or 1.59 per cent; psychoneuroses and neuroses, 12, or 2.12 per cent; undiagnosed psychoses, 44, or 7.76 per cent; without psychoses, 99, or 17.46 per cent; and all other psychoses less than 1 per cent.

The forms of mental disease shown by the readmissions, exclusive of temporary care, briefly summarized, were as follows: senile psychoses, 2, or 1.2 per cent; psychoses with cerebral arteriosclerosis, 3, or 1.8 per cent; general paralysis,

11, or 6.59 per cent; psychoses with cerebral syphilis, 2, or 1.2 per cent; psychoses with other brain or nervous diseases, 2, or 1.2 per cent; alcoholic psychoses, 4, or 2.4 per cent; manic-depressive psychoses, 28, or 16.77 per cent; involution melancholia, 4, or 2.4 per cent; dementia præcox, 51, or 30.54 per cent; paranoia or paranoid conditions, 6, or 3.6 per cent; psychoneuroses and neuroses, 6, or 3.6 per cent; psychoses with psychopathic personality, 2, or 1.2 per cent; psychoses with mental deficiency, 3, or 1.8 per cent; undiagnosed psychoses, 12, or 7.19 per cent; other psychoses, 1 per cent or less; and without psychoses, 28, or 16.77 per cent.

The total number of admissions for the year was 1,752, of which 1,409 were first admissions and 344 readmissions. Four hundred and eighteen, or 23.84 per cent, of the total admissions were discharged as without psychosis. Four hundred and twenty-nine, or 24.47 per cent of all cases admitted, were committed to the Boston State Hospital. Fifteen, or .85 per cent, were committed to private institutions, and 783, or 44.67 per cent, were committed to State or private hospitals for the insane during the year.

The admissions for the year, classified according to legal status, were as follows: —

	Males.	Females.	Totals.
Temporary care cases (chapter 174, General Acts of 1915), .	563	652	1,215
Boston police cases (chapter 307, Acts of 1910), . . .	194	74	268
Voluntary admissions (section 45, chapter 504, Acts of 1909),	129	71	200
Observation cases (chapter 145, General Acts of 1919), .	6	9	15
Cases pending examination and hearing (section 34, chapter 504, Acts of 1909).	6	—	6
Emergency commitments (section 42, chapter 504, Acts of 1909).	—	—	—
Cases held under complaint or indictment (chapter 46, General Acts of 1917).	38	11	49
Military cases (chapter 142, General Acts of 1918), . .	—	—	—
Cases received by transfer (section 69, chapter 504, Acts of 1909).	2	1	3

It is interesting to note that of these admissions 69.31 per cent were temporary care cases, 15.29 per cent Boston police cases, 11.41 per cent voluntary patients, .85 per cent observation cases, .34 per cent cases pending examination and

hearing, and 2.79 per cent cases held under complaint or indictment. The Boston police, observation and emergency cases should be included, for statistical purposes, in the temporary care group, being all admissions of that general class, bringing the total up to 1,504, or 85.79 per cent of the number admitted.

Attention should again be called to the entirely too numerous methods of commitment. There would appear to be no reason why one legislative enactment should not cover all forms of temporary care. If this could be done, we would have to deal with only four different classes of cases, — temporary care, voluntary cases, emergency commitments and criminal cases. An analysis of 14,922 consecutive admissions to the psychopathic department shows that 59.77 per cent were temporary care cases (chapter 174 of the General Acts of 1915); 18.56 per cent Boston police cases (chapter 307 of the Acts of 1910); 1.38 per cent observation cases (section 43, chapter 504, Acts of 1909, and chapter 145, General Acts of 1919); 16.96 per cent voluntary admissions (section 45, chapter 504, Acts of 1909); .50 per cent emergency cases (section 42, chapter 504, Acts of 1909); .61 per cent committed "pending examination and hearing" (section 34, chapter 504, Acts of 1909); and 1.02 per cent held on the order of courts of criminal jurisdiction (chapter 46, General Acts of 1917). All forms of temporary care constituted 81.34 per cent of the total number admitted.

Twelve hundred and fifteen temporary care cases (chapter 174, General Acts of 1915) were admitted during the year ending Sept. 30, 1920. Of the 1,238 discharges, 21, or 1.7 per cent, were discharged as recovered; 139, or 11.23 per cent, as improved; 701, or 56.62 per cent, as unimproved; and 252, or 20.35 per cent, as without psychosis. Eighty-three, or 6.7 per cent, were transferred to voluntary, emergency or observation status, and 28, or 2.26 per cent, died. Five hundred and sixty-three, or 45.48 per cent, were committed to State institutions; 7, or .57 per cent, to private hospitals; and 514, or 41.52 per cent, were discharged to the community as not requiring further care or treatment.

Two hundred and sixty-eight Boston police cases (chapter 307, Acts of 1910) were admitted during the year. Of the 273

discharges, 16, or 5.86 per cent, were discharged as recovered; 28, or 10.26 per cent, as improved; 162, or 59.34 per cent, as unimproved; and 96, or 35.16 per cent, as without psychosis. Eleven, or 4.03 per cent, were transferred to voluntary or observation status, and 43, or 15.75 per cent, died. One hundred and forty, or 51.28 per cent, were committed to State institutions, 3 to private hospitals, and 110, or 40.3 per cent, were discharged to the community as not requiring further care or treatment.

Fifteen observation cases (section 43, chapter 504, Acts of 1909, or chapter 145, General Acts of 1919) were admitted during the year. Of the 18 discharges, 2, or 11.11 per cent, were discharged as recovered; 1, or 5.55 per cent, as improved; 10, or 55.55 per cent, as unimproved; and 2, or 11.11 per cent, as without psychosis. One was transferred to voluntary status and one died. Eleven, or 61.10 per cent, were committed to State institutions, and 4, or 22.22 per cent, were discharged to the community as not requiring further care or treatment.

Six cases pending examination and hearing (section 34, chapter 504, Acts of 1909) were admitted during the year. Of the 8 discharges, none were discharged as recovered; 1, or 12.5 per cent, as improved; 3, or 37.50 per cent, as unimproved; and 2, or 25 per cent, as without psychosis. Two, or 25 per cent, were transferred to a different status, and none died. Two, or 25 per cent, were committed to State institutions, and 4, or 50 per cent, were discharged to the community as not requiring further care or treatment.

Nineteen emergency cases (section 42, chapter 504, Acts of 1909) were transferred from temporary care during the year. Of the 19 discharges, 18, or 94.74 per cent, were discharged as unimproved, and 1, or 5.26 per cent, died. One was transferred to voluntary status; 15, or 78.95 per cent, were committed to State hospitals, and 2, or 10.52 per cent, were discharged to the community as not requiring further care or treatment.

Fifteen hundred and four temporary care cases of all types were admitted during the year. Of the 1,537 discharges, 39, or 2.54 per cent, were discharged as recovered; 169, or 10.99 per cent, as improved; 876, or 56.99 per cent, as unimproved;

and 352, or 22.9 per cent, as without psychosis. Seventy-two, or 4.68 per cent, died. Seven hundred and sixteen, or 46.58 per cent, were committed to State institutions; 10, or .65 per cent, to private hospitals; and 632, or 41.12 per cent, were discharged to the community as not requiring further care or treatment.

Two hundred voluntary cases (section 45, chapter 504, Acts of 1909) were admitted during the year. Of the 227 discharges, 8, or 3.52 per cent, were discharged as recovered; 33, or 14.54 per cent, as improved; 94, or 41.41 per cent, as unimproved; and 89, or 39.21 per cent, as without psychosis. Two were transferred to another status and 1 died. Thirty-seven, or 16.3 per cent, were committed to State institutions, and 170, or 74.89 per cent, were discharged to the community as not requiring further care or treatment.

Forty-nine cases were committed under the provisions of chapter 46 of the General Acts of 1917. Of the 47 discharges, 1, or 2.13 per cent, was discharged as recovered; 4, or 8.52 per cent, as improved; 18, or 38.34 per cent, as unimproved; and 23, or 48.93 per cent, as without psychosis. One was transferred to observation status, and none died. Twelve, or 25.56 per cent, were committed to State institutions; and 33, or 67.34 per cent, were discharged to the community as not requiring further care or treatment.

Four hundred and thirty-one cases were committed during the year on probate court commitments under the provisions of section 30, chapter 504, Acts of 1909. Of these, 2, or .46 per cent, were discharged as recovered; 82, or 19.02 per cent, as improved; 315, or 74.01 per cent, as unimproved; and 2, or .46 per cent, as without psychosis. Three hundred and forty-seven, or 80.51 per cent, were transferred to the hospital department; 7, or 1.61 per cent, to other institutions for the insane; and 46, or 10.67 per cent, were discharged to the community as not requiring further care or treatment.

The following tables show the psychoses of all admissions classified according to legal status: —

Temporary Care Cases (Chapter 174, General Acts of 1915).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Traumatic psychoses,	2	2	4	2	3	5
Traumatic delirium,	1	1	1			
Post-traumatic mental enfeeblement,						
Senile psychoses,	8	15	23	11	22	33
Simple deterioration,	1	1	1			
Delirious and confused type,	3	5	8			
Paranoid type,	1	1	1			
Other types,						
Psychoses with cerebral arteriosclerosis,				26	22	48
General paralysis,				78	17	95
Psychoses with cerebral syphilis,				3	2	5
Psychoses with Huntington's chorea,				1	—	1
Psychoses with brain tumor,				3	1	4
Psychoses with other brain or nervous diseases,	2	1	3	13	13	26
Cerebral embolism,	1	—	1			
Paralysis agitans,	1	—	1			
Meningitis,	1	—	1			
Tabes,	1	1	2			
Acute chorea,	8	10	18			
Other diseases,	7	9	16			
Organic brain disease,	—	1	1			
Exophthalmic goitre,	1	—	1			
Encephalitis lethargica,						
Alcoholic psychoses,	1	1	2	17	7	24
Delirium tremens,	7	2	9			
Acute hallucinosis,	4	3	7			
Chronic hallucinosis,	2	—	2			
Chronic paranoid type,	3	1	4			
Alcoholic deterioration,						
Psychoses due to drugs and other exogenous toxins,	4	2	6	4	2	6
Opium, cocaine, bromides, etc.,						
Psychoses with other somatic diseases,	9	14	23	22	31	53
Delirium with infectious diseases,	2	3	5			
Post-infectious psychoses,	—	2	2			
Exhaustion delirium,	2	4	6			
Delirium of unknown origin,	3	3	6			
Cardio-renal diseases,	6	5	11			
Other diseases,	1	—	1			
Diabetes mellitus,	—	1	1			
Cardio-vascular disease,	1	—	1			
Delirium with meningitis,	1	—	1			
Delirium with cardiac disease,	2	—	2			
Delirium with cerebrospinal syphilis,	—	1	1			
Chronic nephritis,	—	1	1			
Delirium with fractured skull,	1	2	3			
Delirium with encephalitis,						
Manic-depressive psychoses,	19	31	50	46	80	126
Manic type,	24	43	67			
Depressive type,	3	6	9			
Mixed type,						
Involution melancholia,				3	15	18
Dementia præcox,	71	72	143	152	155	307
Paranoid type,	26	32	58			
Catatonic type,	47	45	92			
Hebephrenic type,	8	6	14			
Simple type,						

Temporary Care Cases (Chapter 174, General Acts of 1915) — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Paranoia or paranoid conditions, . . . . .	. . . . .	. . . . .	. . . . .	10	21	31
Epileptic psychoses, . . . . .	. . . . .	. . . . .	. . . . .	14	18	32
Epileptic deterioration,	6	4	10			
Clouded states,	4	9	13			
Others,	4	5	9			
Psychoneuroses and neuroses, . . . . .	. . . . .	. . . . .	. . . . .	13	16	29
Hysterical type,	3	6	9			
Psychasthenic type,	5	4	9			
Neurasthenic type,	4	5	9			
Anxiety neuroses,	1	1	2			
Psychoses with mental deficiency, . . . . .	. . . . .	. . . . .	. . . . .	5	7	12
Undiagnosed psychoses, . . . . .	. . . . .	. . . . .	. . . . .	31	48	79
Without psychosis, . . . . .	. . . . .	. . . . .	. . . . .	109	172	281
Epilepsy without psychosis,	13	6	19			
Alcoholism without psychosis,	2	1	3			
Drug addiction without psychosis,	2	2	4			
Psychopathic personality without psychosis,	18	32	50			
Mental deficiency without psychosis,	22	56	78			
Others,	52	75	127			
Syphilis of the central nervous system,	2	—	2			
Simple depression,	2	7	9			
Conduct disorder,	9	28	37			
Previous undiagnosed psychosis,	1	—	1			
Subnormal,	—	1	1			
Recovered from psychosis,	2	1	3			
Suicidal threats,	—	1	1			
Suicidal attempts,	1	1	2			
Fractured skull,	1	—	1			
Early dementia præcox,	1	1	2			
Cerebral embolism,	1	—	1			
Multiple sclerosis,	1	—	1			
Psychopathic personality on organic basis,	—	1	1			
No diagnosis,	16	23	39			
Family dissension,	4	3	7			
Chorea,	—	2	2			
Arteriosclerosis,	1	—	1			
Encephalitis lethargica,	2	—	2			
Paralysis of seventh nerve,	1	—	1			
Inadequate personality,	—	1	1			
Fright,	—	1	1			
Syphilitic aortitis,	1	—	1			
Malingering,	2	—	2			
Language difficulty,	1	—	1			
Cardio-vascular disease,	—	1	1			
Mental deficiency plus epilepsy,	1	—	1			
Congenital syphilis,	—	1	1			
Organic brain disease,	2	1	3			
Syncope,	—	1	1			
Total, . . . . .	. . . . .	. . . . .	. . . . .	563	652	1,215

Boston Police Cases (Chapter 307, Acts of 1910).

Senile psychoses, . . . . .	. . . . .	. . . . .	. . . . .	2	2	4
Simple deterioration,	2	2	4			
Psychoses with cerebral arteriosclerosis, . . . . .	. . . . .	. . . . .	. . . . .	8	2	10
General paralysis, . . . . .	. . . . .	. . . . .	. . . . .	13	2	15

Boston Police Cases (Chapter 307, Acts of 1910) — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with cerebral syphilis, . . . . .	. .	. .	. .	3	—	3
Psychoses with other brain or nervous diseases, . . . . .	. .	. .	. .	—	1	1
Cerebral embolism,	—	1	1			
Alcoholic psychoses, . . . . .	. .	. .	. .	21	2	23
Delirium tremens,	5	—	5			
Acute hallucinosis,	10	1	11			
Chronic hallucinosis,	3	—	3			
Alcoholic deterioration,	3	1	4			
Psychoses due to drugs and other exogenous toxins, . . . . .	. .	. .	. .	—	3	3
Opium, cocaine, bromides, etc.,	—	3	3			
Psychoses with other somatic diseases, . . . . .	. .	. .	. .	5	—	5
Delirium with infectious disease,	2	—	2			
Delirium of unknown origin,	1	—	1			
Cardio-renal diseases,	1	—	1			
Delirium with encephalitis,	1	—	1			
Manic-depressive psychoses, . . . . .	. .	. .	. .	16	4	20
Manic type,	14	2	16			
Depressive type,	2	1	3			
Mixed type,	—	1	1			
Involution melancholia, . . . . .	. .	. .	. .	—	1	1
Dementia præcox, . . . . .	. .	. .	. .	57	25	82
Paranoid type,	28	14	42			
Catatonic type,	10	5	15			
Hebephrenic type,	19	5	24			
Simple type,	—	1	1			
Paranoia or paranoid conditions, . . . . .	. .	. .	. .	10	6	16
Epileptic psychoses, . . . . .	. .	. .	. .	4	1	5
Epileptic deterioration,	3	1	4			
Clouded states,	1	—	1			
Psychoneuroses and neuroses, . . . . .	. .	. .	. .	2	2	4
Hysterical type,	1	—	1			
Psychasthenic type,	1	—	1			
Anxiety neuroses,	—	2	2			
Psychoses with mental deficiency, . . . . .	. .	. .	. .	—	1	1
Undiagnosed psychoses, . . . . .	. .	. .	. .	22	7	29
Without psychosis, . . . . .	. .	. .	. .	31	15	46
Epilepsy without psychosis,	1	1	2			
Alcoholism without psychosis,	1	1	2			
Drug addiction without psychosis,	—	1	1			
Psychopathic personality without psychosis,	2	2	4			
Mental deficiency without psychosis,	9	6	15			
Others,	18	4	22			
Conduct disorder,	1	—	1			
Syphilis of the central nervous system,	2	—	2			
Family dissension,	3	—	3			
Recovered from psychosis,	1	—	1			
Psychosis sexualis,	1	—	1			
Cardio-vascular disease,	1	—	1			
Pernicious anemia,	1	—	1			
Suicidal attempts,	1	—	1			
Huntington's chorea,	—	1	1			
Religious ecstasy,	1	—	1			
No diagnosis,	6	3	9			
Total, . . . . .	. .	. .	. .	194	74	268

Observation Cases (Chapter 145, General Acts of 1919).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with cerebral arteriosclerosis, . . . . .	. . . . .	. . . . .	. . . . .	1	-	1
Psychoses with other somatic diseases, . . . . .	. . . . .	. . . . .	. . . . .	1	1	2
Delirium with infectious diseases,	1	-	1			
Delirium of unknown origin,	-	1	1			
Manic-depressive psychoses, . . . . .	. . . . .	. . . . .	. . . . .	-	1	1
Manic type,	-	1	1			
Dementia præcox, . . . . .	. . . . .	. . . . .	. . . . .	2	4	6
Paranoid type,	2	3	5			
Hebephrenic type,	-	1	1			
Paranoia or paranoid conditions, . . . . .	. . . . .	. . . . .	. . . . .	-	1	1
Psychoneuroses and neuroses, . . . . .	. . . . .	. . . . .	. . . . .	-	1	1
Neurasthenic type,	-	1	1			
Undiagnosed psychoses, . . . . .	. . . . .	. . . . .	. . . . .	1	-	1
Without psychosis, . . . . .	. . . . .	. . . . .	. . . . .	1	1	2
Psychopathic personality without psychosis,	-	1	1			
Symptomatic depression,	1	-	1			
Total, . . . . .	. . . . .	. . . . .	. . . . .	6	9	15

Cases pending Examination and Hearing (Section 34, Chapter 504, Acts of 1909).

General paralysis, . . . . .	. . . . .	. . . . .	. . . . .	1	-	1
Alcoholic psychoses, . . . . .	. . . . .	. . . . .	. . . . .	2	-	2
Chronic paranoid type,	1	-	1			
Alcoholic deterioration,	1	-	1			
Manic-depressive psychoses, . . . . .	. . . . .	. . . . .	. . . . .	1	-	1
Manic type,	1	-	1			
Dementia præcox, . . . . .	. . . . .	. . . . .	. . . . .	1	-	1
Paranoid type,	1	-	1			
Without psychosis, . . . . .	. . . . .	. . . . .	. . . . .	1	-	1
Psychopathic personality without psychosis,	1	-	1			
Total, . . . . .	. . . . .	. . . . .	. . . . .	6	-	6

Psychoses of All Forms of Temporary Care Admissions during the Year.

Traumatic psychoses, . . . . .	. . . . .	. . . . .	. . . . .	2	3	5
Traumatic delirium,	2	2	4			
Post-traumatic mental enfeeblement,	-	1	1			
Senile psychoses, . . . . .	. . . . .	. . . . .	. . . . .	13	24	37
Simple deterioration,	10	17	27			
Delirious and confused type,	-	1	1			
Paranoid type,	3	5	8			
Other types,	-	1	1			
Psychoses with cerebral arteriosclerosis, . . . . .	. . . . .	. . . . .	. . . . .	35	24	59
General paralysis, . . . . .	. . . . .	. . . . .	. . . . .	92	19	111

Psychoses of All Forms of Temporary Care Admissions during the Year —
Continued.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with cerebral syphilis, . . . . .	..	..	..	6	2	8
Psychoses with Huntington's chorea, . . . . .	..	..	..	1	-	1
Psychoses with brain tumor, . . . . .	..	..	..	3	1	4
Psychoses with other brain or nervous diseases, . . . . .	..	..	..	13	14	27
Cerebral embolism,	2	2	4			
Paralysis agitans,	1	-	1			
Meningitis,	1	-	1			
Tubes,	-	1	1			
Acute chorea,	1	1	2			
Other diseases,	8	10	18			
Organic brain disease,	7	9	16			
Exophthalmic goiter,	-	1	1			
Encephalitis lethargica,	1	-	1			
Alcoholic psychoses, . . . . .	..	..	..	40	9	49
Delirium tremens,	6	1	7			
Acute hallucinosis,	17	3	20			
Chronic hallucinosis,	7	3	10			
Chronic paranoid type,	3	-	3			
Alcoholic deterioration,	7	2	9			
Psychoses due to drugs and other exogenous toxins, . . . . .	..	..	..	4	5	9
Opium, cocaine, bromides, etc.,	4	5	9			
Psychoses with other somatic diseases, . . . . .	..	..	..	28	32	60
Delirium with infectious diseases,	12	14	26			
Post-infectious psychosis,	2	3	5			
Exhaustion delirium,	-	2	2			
Delirium of unknown origin,	3	5	8			
Cardio-renal disease,	4	3	7			
Others,	7	5	12			
Diabetes mellitus,	1	-	1			
Cardio-vascular disease,	-	1	1			
Chronic nephritis,	-	1	1			
Delirium with encephalitis,	2	2	4			
Delirium with meningitis,	1	-	1			
Delirium with cardiac disease,	1	-	1			
Delirium with cerebrospinal syphilis,	2	-	2			
Delirium with fractured skull,	-	1	1			
Manic-depressive psychoses, . . . . .	..	..	..	63	85	148
Manic type,	34	34	68			
Depressive type,	26	44	70			
Mixed type,	3	7	10			
Involution melancholia, . . . . .	..	..	..	3	16	19
Dementia præcox, . . . . .	..	..	..	212	184	396
Paranoid type,	102	89	191			
Catatonic type,	36	37	73			
Hebephrenic type,	66	51	117			
Simple type,	8	7	15			
Paranoia and paranoid conditions, . . . . .	..	..	..	20	28	48
Epileptic psychoses, . . . . .	..	..	..	18	19	37
Epileptic deterioration,	9	5	14			
Clouded states,	5	9	14			
Other types,	4	5	9			
Psychoneuroses and neuroses, . . . . .	..	..	..	15	19	34
Hysterical type,	4	6	10			
Psychasthenic type,	6	4	10			
Neurasthenic type,	4	6	10			
Anxiety neuroses,	1	3	4			

*Psychoses of All Forms of Temporary Care Admissions during the Year—
Concluded.*

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with mental deficiency, . . . . .	. . . . .	. . . . .	. . . . .	5	8	13
Undiagnosed psychoses, . . . . .	. . . . .	. . . . .	. . . . .	54	55	109
Without psychosis, . . . . .	. . . . .	. . . . .	. . . . .	142	188	330
Epilepsy without psychosis,	14	7	21			
Alcoholism without psychosis,	3	2	5			
Drug addiction without psychosis,	2	3	5			
Psychopathic personality without psychosis,	21	35	56			
Mental deficiency without psychosis,	31	62	93			
Others,	71	79	150			
Conduct disorder,	10	28	38			
Syphilis of the central nervous system,	4	—	4			
Family dissension,	7	3	10			
Recovered from psychosis,	3	1	4			
Psychosis sexualis,	1	—	1			
Cardio-vascular disease,	1	1	2			
Pernicious anemia,	1	—	1			
Suicidal attempts,	2	1	3			
Suicidal threats,	—	1	1			
Huntington's chorea,	—	1	1			
Religious ecstasy,	1	—	1			
No diagnosis,	22	26	48			
Symptomatic depression,	1	—	1			
Simple depression,	2	7	9			
Previous undiagnosed psychosis,	1	—	1			
Subnormal,	—	1	1			
Fractured skull,	1	—	1			
Early dementia præcox,	1	1	2			
Cerebral embolism,	1	—	1			
Multiple sclerosis,	1	—	1			
Psychopathic personality on organic basis,	—	1	1			
Chorea,	—	2	2			
Arteriosclerosis,	1	—	1			
Encephalitis lethargica,	2	—	2			
Paralysis of the seventh nerve,	1	—	1			
Inadequate personality,	—	1	1			
Fright,	—	1	1			
Syphilitic aortitis,	1	—	1			
Malingering,	2	—	2			
Language difficulty,	1	—	1			
Mental deficiency plus epilepsy,	1	—	1			
Congenital syphilis,	—	1	1			
Organic brain disease,	2	1	3			
Syncope,	—	1	1			
Total, . . . . .	. . . . .	. . . . .	. . . . .	769	735	1,504

Psychoses of Voluntary Cases (Section 45, Chapter 504, Acts of 1909).

Senile psychoses, . . . . .	. . . . .	. . . . .	. . . . .	2	—	2
Simple deterioration,	2	—	2			
Psychoses with cerebral arteriosclerosis, . . . . .	. . . . .	. . . . .	. . . . .	2	2	4
General paralysis, . . . . .	. . . . .	. . . . .	. . . . .	17	2	19
Psychoses with cerebral syphilis, . . . . .	. . . . .	. . . . .	. . . . .	5	—	5
Psychoses with other brain or nervous diseases, . . . . .	. . . . .	. . . . .	. . . . .	3	—	3
Cerebral embolism,	1	—	1			
Others,	2	—	2			
Organic brain disease,	2	—	2			

Psychoses of Voluntary Cases (Section 45, Chapter 504, Acts of 1909) — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Alcoholic psychoses, . . . . .	.	.	.	1	2	3
Chronic hallucinosis,	1	1	1			
Chronic paranoid type,	1	—	1			
Alcoholic deterioration,	—	1	1			
Manic-depressive psychoses, . . . . .	.	.	.	6	3	9
Manic type,	3	1	4			
Depressive type,	3	2	5			
Involution melancholia, . . . . .	.	.	.	2	—	2
Dementia præcox, . . . . .	.	.	.	21	12	33
Paranoid type,	11	7	18			
Catatonic type,	3	—	3			
Hebephrenic type,	4	4	8			
Simple type,	3	1	4			
Paranoia or paranoid conditions, . . . . .	.	.	.	3	3	6
Epileptic psychoses, . . . . .	.	.	.	1	1	2
Epileptic deterioration,	1	1	2			
Psychoneuroses and neuroses, . . . . .	.	.	.	8	6	14
Hysterical type,	1	1	2			
Psychasthenic type,	4	3	7			
Neurasthenic type,	3	2	5			
Undiagnosed psychoses, . . . . .	.	.	.	4	2	6
Without psychosis, . . . . .	.	.	.	54	38	92
Epilepsy without psychosis,	7	1	8			
Alcoholism without psychosis,	1	1	2			
Psychopathic personality without psychosis,	8	11	17			
Mental deficiency without psychosis,	5	4	9			
Others,	33	21	54			
Symptomatic depression,	—	1	1			
Syphilis of the central nervous system,	10	3	13			
Moron plus alcohol,	1	—	1			
Conduct disorder,	4	1	5			
Chronic myelitis,	1	—	1			
Domestic difficulties,	—	1	1			
Recovered from psychosis,	1	—	1			
Suicidal attempts,	1	—	1			
Simple depression,	1	4	5			
Brain tumor,	1	1	2			
Chorea,	—	1	1			
Cardio-vascular renal disease,	1	—	1			
Tabes dorsalis,	1	—	1			
Mixed organic nervous disease,	—	1	1			
No diagnosis,	9	8	17			
Post-apoplectic depression,	1	—	1			
For examination,	1	—	1			
Total, . . . . .	.	.	.	129	71	200

Psychoses of Cases held under Complaint or Indictment (Chapter 46, General Acts of 1917).

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Senile psychoses,				1	-	1
Simple deterioration,	1	-	1			
General paralysis,				4	1	5
Alcoholic psychoses,				1	-	1
Acute hallucinosis,	1	-	1			
Manic-depressive psychoses,				1	1	2
Manic type,	-	1	1			
Depressive type,	1	-	1			
Dementia præcox,				10	2	12
Paranoid type,	6	1	7			
Hebephrenic type,	3	1	4			
Simple type,	1	-	1			
Paranoia or paranoid conditions,				1	-	1
Psychoses with mental deficiency,				1	-	1
Without psychosis,				19	7	26
Epilepsy without psychosis,	1	-	1			
Alcoholism without psychosis,	1	1	2			
Drug addiction without psychosis,	1	-	1			
Psychopathic personality without psychosis,	4	1	5			
Mental deficiency without psychosis,	7	3	10			
Others,	5	2	7			
Syphilis of the central nervous system,	-	2	2			
Conduct disorder,	2	-	2			
Theft,	1	-	1			
Suicidal threats,	1	-	1			
Domestic difficulties,	1	-	1			
Total,				38	11	49

Psychoses of All Admissions during the Year.

Traumatic psychoses,	2	2	4	2	3	5
Traumatic delirium,	-	1	1			
Post-traumatic mental enfeeblement,						
Senile psychoses,				16	24	40
Simple deterioration,	13	17	30			
Delirious and confused type,	-	1	1			
Paranoid type,	3	5	8			
Other types,	-	1	1			
Psychoses with cerebral arteriosclerosis,				37	26	63
General paralysis,				114	22	136
Psychoses with cerebral syphilis,				11	2	13
Psychoses with Huntington's chorea,				1	-	1
Psychoses with brain tumor,				3	1	4
Psychoses with other brain or nervous diseases,				16	14	30
Cerebral embolism,	3	2	5			
Paralysis agitans,	1	-	1			
Meningitis,	1	-	1			
Tabes,	-	1	1			
Acute chorea,	1	1	2			

Psychoses of All Admissions during the Year — Continued.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses, etc. — <i>Con.</i>						
Other types,	10	10	20			
Organic brain disease,	9	9	18			
Exophthalmic goiter,	—	1	1			
Encephalitis lethargica,	1	—	1			
Alcoholic psychoses,				42	11	53
Delirium tremens,	6	1	7			
Acute hallucinosis,	18	3	21			
Chronic hallucinosis,	7	4	11			
Chronic paranoid type,	4	—	4			
Alcoholic deterioration,	7	3	10			
Psychoses due to drugs and other exogenous toxins,				4	5	9
Opium, cocaine, bromides, etc.,	4	5	9			
Psychoses with other somatic diseases,				28	32	60
Delirium with infectious disease,	12	14	26			
Post-infectious psychosis,	2	3	5			
Exhaustion delirium,	—	2	2			
Delirium of unknown origin,	3	5	8			
Cardio-renal disease,	4	3	7			
Others,	7	5	12			
Diabetes mellitus,	1	—	1			
Cardio-vascular disease,	—	1	1			
Chronic nephritis,	—	1	1			
Delirium with encephalitis,	2	2	4			
Delirium with meningitis,	1	—	1			
Delirium with cardiac disease,	1	—	1			
Delirium with cerebrospinal syphilis,	2	—	2			
Delirium with fractured skull,	—	1	1			
Manic-depressive psychoses,				71	89	160
Manic type,	38	36	74			
Depressive type,	30	46	76			
Mixed type,	3	7	10			
Involution melancholia,				5	16	21
Dementia præcox,				243	199	442
Paranoid type,	119	98	217			
Catatonic type,	39	37	76			
Hebephrenic type,	73	56	129			
Simple type,	12	8	20			
Paranoia and paranoid conditions,				24	31	55
Epileptic psychoses,				19	20	39
Epileptic deterioration,	10	6	16			
Clouded states,	5	9	14			
Other types,	4	5	9			
Psychoneuroses and neuroses,				23	25	48
Hysterical type,	5	6	12			
Psychasthenic type,	10	7	17			
Neurasthenic type,	7	8	15			
Anxiety neuroses,	1	3	4			
Psychoses with mental deficiency,				6	8	14
Undiagnosed psychoses,				58	57	115
Without psychosis,				215	233	448
Epilepsy without psychosis,	22	8	30			
Alcoholism without psychosis,	5	4	9			
Drug addiction without psychosis,	3	3	6			
Psychopathic personality without psychosis,	33	47	80			
Mental deficiency without psychosis,	43	69	112			
Others,	109	102	211			
Conduct disorder,	16	29	45			

Psychoses of All Admissions during the Year — Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Without psychosis — <i>Con.</i>						
Others — <i>Con.</i>						
Syphilis of the central nervous system,	14	5	19			
Family dissension,	7	3	10			
Recovered psychosis,	4	1	5			
Psychosis sexualis,	1	—	1			
Cardio-vascular disease,	1	1	2			
Cardio-vascular renal disease,	1	—	1			
Pernicious anemia,	1	—	1			
Suicidal attempts,	3	1	4			
Suicidal threats,	1	1	2			
Huntington's chorea,	—	1	1			
Religious ecstasy,	1	—	1			
No diagnosis,	31	34	65			
Symptomatic depression,	1	1	2			
Simple depression,	3	11	14			
Previous undiagnosed psychosis,	1	—	1			
Subnormal,	—	1	1			
Fractured skull,	1	—	1			
Early dementia præcox,	1	1	2			
Cerebral embolism,	1	—	1			
Multiple sclerosis,	1	—	1			
Psychopathic personality on organic basis,	—	1	1			
Chorea,	—	3	3			
Arteriosclerosis,	1	—	1			
Encephalitis lethargica,	2	—	2			
Paralysis of the seventh nerve,	1	—	1			
Inadequate personality,	—	1	1			
Fright,	—	1	1			
Syphilitic aortitis,	1	—	1			
Malingering,	2	—	2			
Language difficulty,	1	—	1			
Mental deficiency plus epilepsy,	1	—	1			
Congenital syphilis,	—	1	1			
Organic brain disease,	2	1	3			
Syncope,	—	1	1			
Moron plus alcohol,	1	—	1			
Chronic myelitis,	1	—	1			
Domestic difficulties,	1	1	2			
Brain tumor,	1	1	2			
Tabes dorsalis,	1	—	1			
Mixed organic nervous disease,	—	1	1			
Post-apoplectic depression,	1	—	1			
For examination,	1	—	1			
Theft,	1	—	1			
Total,				938	818	1,756

Psychoses of Cases admitted for Observation and subsequently committed.

Senile psychoses,				12	18	30
Simple deterioration,	9	13	22			
Delirious and confused types,	—	2	2			
Depressed and agitated types,	—	1	1			
Paranoid types,	3	2	5			
Psychoses with cerebral arteriosclerosis,				20	16	36
General paralysis,				69	12	81
Psychoses with cerebral syphilis,				4	2	6
Psychoses with Huntington's chorea,				1	—	1
Psychoses with brain tumor,				1	—	1

Psychoses of Cases admitted for Observation and subsequently committed —
Concluded.

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Psychoses with other brain or nervous diseases, . . . . .	.	.	.	7	10	17
Cerebral embolism,	—	2	2			
Paralysis agitans,	1	—	1			
Tabes,	—	1	1			
Others,	6	7	13			
Organic brain disease,	5	6	11			
Exophthalmic goiter,	—	1	1			
Encephalitis,	1	—	1			
Alcoholic psychoses, . . . . .	.	.	.	12	6	18
Acute hallucinosis,	6	3	9			
Chronic hallucinosis,	3	3	6			
Chronic paranoid type,	3	—	3			
Psychoses due to drugs and other exogenous toxins, . . . . .	.	.	.	2	—	2
Opium, cocaine, bromides, etc.,	2	—	2			
Psychoses with other somatic diseases, . . . . .	.	.	.	6	17	23
Delirium with infectious disease,	4	6	10			
Post-infectious psychosis,	1	1	2			
Exhaustion delirium,	—	2	2			
Delirium of unknown origin,	—	3	3			
Cardio-renal disease,	1	3	4			
Others,	—	2	2			
Delirium with encephalitis,	—	1	1			
Psychosis with chronic nephritis,	—	1	1			
Manic-depressive psychoses, . . . . .	.	.	.	49	65	114
Manic type,	35	31	66			
Depressive type,	10	27	37			
Stuporous type,	—	1	1			
Mixed type,	4	6	10			
Involution melancholia, . . . . .	.	.	.	4	11	15
Dementia præcox, . . . . .	.	.	.	166	139	305
Paranoid type,	75	71	146			
Catatonic type,	33	27	60			
Hebephrenic type,	55	38	93			
Simple type,	3	3	6			
Paranoia or paranoid conditions, . . . . .	.	.	.	19	19	38
Epileptic psychoses, . . . . .	.	.	.	7	8	15
Epileptic deterioration,	2	3	5			
Clouded states,	4	3	7			
Others,	1	2	3			
Psychoneuroses and neuroses, . . . . .	.	.	.	—	1	1
Neurasthenic type,	—	1	1			
Psychoses with psychopathic personality, . . . . .	.	.	.	—	1	1
Psychoses with mental deficiency, . . . . .	.	.	.	1	2	3
Undiagnosed psychoses, . . . . .	.	.	.	36	25	61
Without psychosis, . . . . .	.	.	.	4	4	8
Epilepsy without psychosis,	1	—	1			
Mental deficiency without psychosis,	2	2	4			
Others,	1	2	3			
Degenerative chorea,	—	1	1			
No diagnosis,	1	1	2			
Total, . . . . .	.	.	.	420	356	776

An analysis of 12,252 temporary care cases shows the psychoses represented to be as follows: alcoholic psychoses, 1,133, or 9.25 per cent; dementia præcox, 3,063, or 25 per cent; senile psychoses, 387, or 3.16 per cent; general paralysis, 743, or 6.06 per cent; manic-depressive psychoses, 1,243, or 10.14 per cent; arteriosclerosis, 396, or 3.23 per cent; epilepsy, 227, or 1.85 per cent; imbecility, 49, or .39 per cent; and without psychosis, 2,528, or 20.63 per cent.

An analysis of 1,430 cases discharged as without psychosis shows that they included the following: mental deficiency, 486, or 34 per cent; psychopathic personality, 217, or 15.17 per cent; hysteria, 53, neurasthenia, 24, psychasthenia, 15; total psychoneuroses, 160, or 11.20 per cent; epilepsy, 115, or 8.04 per cent; alcoholism, 87, or 6.08 per cent; conduct disorder, 60, or 4.20 per cent; depression, undifferentiated, 28, or 1.96 per cent; syphilis, 29, or 2.03 per cent; organic brain disease, 24, or 1.68 per cent; moron, 22, or 1.54 per cent; neurosyphilis, 18, or 1.26 per cent; normal, 20, or 1.40 per cent; drug addiction, 20, or 1.40 per cent; somatic and non-mental, 17, or 1.19 per cent; and various other conditions amounting to less than 1 per cent.

An analysis of 1,807 voluntary cases shows the following psychoses represented: alcoholic psychoses, 102, or 5.64 per cent; dementia præcox, 333, or 18.43 per cent; manic-depressive psychoses, 123, or 6.81 per cent; involution melancholia, 18, or .99 per cent; senile psychoses, 20, or 1.11 per cent; general paralysis, 143, or 7.91 per cent; epilepsy, 19, or 1.05 per cent; psychoneuroses, 65, or 3.59 per cent; and without psychosis, 626, or 34.64 per cent.

A study of the hospital residence of the cases discharged during the statistical year is of considerable interest. One thousand two hundred and nineteen, or 71.29 per cent, were discharged after a residence of ten days or less; 1,370, or 80.12 per cent, after a residence of two weeks or less; 1,471, or 86.02 per cent, after a residence of three weeks or less; 1,548, or 90.52 per cent, after a residence of one month or less; 1,646, or 96.26 per cent, after a residence of two months or less; and 1,670, or 97.66 per cent, after a residence of three months or less. This would indicate very strongly the necessity of

extending the period of temporary care, if possible, to three months.

The psychoses represented by the cases discharged from the psychopathic department, exclusive of temporary care, during the year were as follows: senile psychoses, 6, or 2.07 per cent; psychoses with cerebral arteriosclerosis, 7, or 2.40 per cent; general paralysis, 14, or 4.80 per cent; psychoses with other brain or nervous disease, 3, or 1.04 per cent; alcoholic psychoses, 6, or 2.07 per cent; psychoses with other somatic diseases, 7, or 2.40 per cent; manic-depressive psychoses, 26, or 8.90 per cent; dementia præcox, 47, or 16.09 per cent; paranoia or paranoid conditions, 9, or 3.11 per cent; epileptic psychoses, 4, or 1.37 per cent; psychoneuroses or neuroses, 17, or 5.82 per cent; psychoses with mental deficiency, 5, or 1.71 per cent; undiagnosed psychoses, 28, or 9.60 per cent; all other psychoses less than 1 per cent; and without psychosis, 106, or 36.30 per cent.

Of the 21 deaths during the year, exclusive of temporary care cases, the psychoses were as follows: senile psychoses, 2, or 9.52 per cent; psychoses with cerebral arteriosclerosis, 1, or 4.76 per cent; general paralysis, 4, or 19.04 per cent; psychoses with brain tumor, 1, or 4.76 per cent; psychoses with other somatic diseases, 5, or 23.80 per cent; manic-depressive psychoses, 2, or 9.52 per cent; involution melancholia, 1, or 4.76 per cent; dementia præcox, 1, or 4.76 per cent; undiagnosed psychoses, 3, or 14.28 per cent; and without psychosis, 1, or 4.67 per cent.

The causes of death during the year, exclusive of temporary care cases, were as follows: general paralysis of the insane, 2, or 9.52 per cent; chronic myocarditis, 2, or 9.52 per cent; bronchopneumonia, 5, or 23.80 per cent; lobar pneumonia, 2, or 9.52 per cent; chronic nephritis, 2, or 9.52 per cent; and 1, or 4.76 per cent, of each of the following causes: influenza, erysipelas, tuberculosis of the lungs, sarcoma of the sacrum, mumps, brain tumor, arteriosclerosis, and other diseases of the circulatory system.

OUT-PATIENT SERVICE.

The work of the out-patient service consists, in a general way, of the study of the cases referred to that department from the wards of the Psychopathic Hospital or from its social service department, cases referred by courts, schools, social agencies and other hospitals, as well as those referred by individual physicians, and particularly cases coming on their own initiative. The statistical tables showing the number of patients presenting themselves at the out-patient clinics show that there is a remarkable demand on the part of the general public for a service of this type. It is worthy of note that a considerable percentage of these cases include adolescents, between the ages of fourteen and twenty-one years, and children, from two to fourteen years old, as well as quite a number of infants.

The important function of the out-patient service is the mental examination of a rather wide range of individuals of various types. An analysis of the reports of the department shows that this work covers principally cases in which the mental condition of the individual is in question, examination of backward school children, sex offenders, juvenile delinquents and psychoneurotics, studies of families of syphilitics, and the supervision of patients discharged from the wards of the hospital. A study of the statistical tables shows that a large percentage of these cases do not present any evidences of psychoses. This group has to do primarily with mental deficiency, psychopathic personalities, epilepsy and syphilis. Of the actual psychoses represented during the year, psychoneuroses, dementia præcox, manic-depressive insanity, alcoholism and psychoses associated with organic brain disease predominate.

The question often arises as to what is actually accomplished by the operation of an out-patient service in an institution for mental diseases. The actual disposition of these cases as covered in the statistical reports shows that in the majority of the cases presenting themselves nothing more than supervision in the out-patient service is necessary. In a considerable percentage of cases reports are made and advice relative to the

patient is given to some social agency which was responsible for their visit. Observation in the wards of the psychopathic department is recommended in a large number of cases, and commitment in many instances arranged for in institutions for the feeble-minded or State hospitals.

During the year ending Sept. 30, 1920, 1,164 new cases were reported. A classification of the new cases by age groups is shown in the following table: —

	Males.	Females.	Totals.
Infants (under 2 years of age),	14	2	16
Children (male, 2 to 14 years; female, 2 to 12 years), .	172	95	267
Adolescents (male, 14 to 21 years; female, 12 to 21 years),	72	206	278
Adults,	239	364	603
Total,	497	667	1,164

It will be noted that of the total number as shown above, 51.80 per cent were adults, 23.88 per cent adolescents, 22.94 per cent children, and 1.37 per cent infants.

The source of origin of these cases is shown in the following table: —

Referred by courts,	49
Referred by schools,	62
Referred by other hospitals,	100
Referred by social agencies,	347
Referred by Red Cross,	17
Referred by physicians,	134
Referred by psychopathic department, wards,	111
Referred by psychopathic department, social service, syphilis division,	135
Referred by former patients,	94
Referred by board of health,	4
Came on own or relatives' initiative,	111
Total,	1,164

As shown by the above tabulation, 4.21 per cent of these cases were referred by courts, 5.32 per cent by schools, 8.59 per cent by other hospitals, 29.81 per cent by social agencies, 1.46 per cent by the Red Cross, 11.51 per cent by physicians,

9.54 per cent by the wards of the psychopathic department, 9.60 per cent by the syphilis division of the psychopathic social service department, 8.07 per cent by former patients, .34 per cent by the board of health, and 9.54 per cent came on their own initiative or were sent by relatives.

The problems presented by these cases are shown in the following table:—

Mental condition of:—

(a) Returned soldier,	10
(b) Adult offenders,	23
(c) Juvenile delinquents,	101
(d) Sex offenders,	34
Unmarried mothers,	54
(e) Backward child or person,	254
(f) Unemployed person,	4
(g) Alcoholic,	3
(h) Suspected insane person,	149
(i) Child to be placed out or adopted,	37
(j) Drug addict,	1
Condition of families of syphilitics,	133
Question of epilepsy,	18
After-care:—	
Patients on visit from Boston State Hospital,	1
Patients on visit from other State hospitals,	8
Patients discharged from psychopathic department to out-patient service,	108
Physical condition,	67
Question of psychoneurosis,	143
Question of syphilis,	15
Occupational advice,	1

Total, 1,164

Of the 1,164 cases reported, 50 per cent were cases examined to determine the possible existence of some mental disease, 7.56 per cent were sex offenders, 11.43 per cent were cases sent for examination on account of the existence of syphilis in the family, 9.28 per cent were cases previously discharged from the wards of the psychopathic department, and 5.75 per cent were cases for physical examination only. In 12.28 per cent of these cases the only question at issue was the possible

existence of a psychoneurosis, and in 1.29 per cent the only purpose of the examination was to diagnose syphilis, if present.

The psychoses of these cases were as follows: —

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Senile psychoses,	—	—	—	—	2	2
Simple deterioration,	—	1	1	—	—	—
Presenile type,	—	1	1	—	—	—
Psychoses with cerebral arteriosclerosis,	—	—	—	6	2	8
General paralysis,	—	—	—	12	2	14
Psychoses with cerebral syphilis,	—	—	—	1	1	2
Psychoses with Huntington's chorea,	—	—	—	—	1	1
Psychoses with other brain or nervous diseases,	—	—	—	—	1	1
Acute chorea,	—	1	1	—	—	—
Alcoholic psychoses,	—	—	—	9	3	12
Acute hallucinosis,	3	1	4	—	—	—
Chronic hallucinosis,	3	2	5	—	—	—
Chronic paranoid type,	2	—	2	—	—	—
Alcoholic deterioration,	1	—	1	—	—	—
Psychoses with other somatic diseases,	—	—	—	1	3	4
Delirium with infectious disease,	—	1	1	—	—	—
Delirium with chorea,	1	—	1	—	—	—
Post-infectious psychoses,	—	1	1	—	—	—
Cardio-vascular disease,	—	1	1	—	—	—
Manic-depressive psychoses,	—	—	—	14	17	31
Manic type,	2	5	7	—	—	—
Depressive type,	11	11	22	—	—	—
Mixed type,	1	1	2	—	—	—
Involution melancholia,	—	—	—	2	6	8
Dementia præcox,	—	—	—	25	30	55
Paranoid type,	9	7	16	—	—	—
Catatonic type,	3	5	8	—	—	—
Hebephrenic type,	12	16	28	—	—	—
Simple type,	1	2	3	—	—	—
Paranoia or paranoid conditions,	—	—	—	2	2	4
Epileptic psychoses,	—	—	—	6	1	7
Epileptic deterioration,	4	—	4	—	—	—
Clouded states,	—	1	1	—	—	—
Others,	2	—	2	—	—	—
Psychoneuroses and neuroses,	—	—	—	35	102	137
Hysterical type,	1	21	22	—	—	—
Psychasthenic type,	16	12	28	—	—	—
Neurasthenic type,	17	67	84	—	—	—
Unclassified,	1	2	3	—	—	—
Psychoses with psychopathic personality,	—	—	—	2	—	2
Psychoses with mental deficiency,	—	—	—	—	—	—
Undiagnosed psychoses,	—	—	—	3	18	21
Without psychosis,	—	—	—	379	476	855
Epilepsy without psychosis,	10	6	16	—	—	—
Drug addiction without psychosis,	—	1	1	—	—	—

	Males.	Females.	Totals.	TOTAL.		
				Males.	Females.	Totals.
Without psychosis — <i>Con.</i>						
Constitutional psychopathic personality without psychosis,	19	40	59			
Mental deficiency without psychosis,	136	188	324			
Other types,	214	241	455			
Depression,	2	2	4			
Conduct disorder,	25	60	85			
Illegitimate pregnancy,	—	2	2			
Illegitimate maternity,	—	9	9			
Incorrigible child,	3	—	3			
Underdevelopment,	3	—	3			
Speech defect,	1	1	2			
Bad environment,	—	4	4			
Syphilis,	6	16	22			
Neurosyphilis,	2	1	3			
Genito-urinary disease,	—	1	1			
Cardio-vascular disease,	1	2	3			
Organic brain disease,	2	1	3			
Pelvic disease,	—	1	1			
Ear disease,	—	1	1			
Skin disease,	1	—	1			
Other physical disease,	2	2	4			
Anemia,	—	1	1			
Oxaluria,	—	1	1			
Hydrocephalus,	1	1	2			
Rheumatism,	1	—	1			
Enuresis,	—	1	1			
Cerebral embolism,	1	—	1			
Migraine,	—	1	1			
Furunculosis,	1	—	1			
Neuritis,	—	1	1			
Arthritis,	2	—	2			
Polyarthritis,	—	1	1			
Arteriosclerosis,	3	—	3			
Cerebral arteriosclerosis,	—	1	1			
Trigeminal neuralgia,	—	1	1			
Chorea,	9	5	14			
Myalgia,	1	—	1			
Lax abdominal wall,	—	1	1			
Head injury,	1	—	1			
Pulmonary hemorrhage,	1	—	1			
Varicose veins,	1	1	2			
Orthopedic foot,	—	—	—			
Climacterium,	—	1	1			
Admission for Wassermann only,	46	46	92			
Domestic incompatibility,	1	5	6			
Suicidal threat,	—	1	1			
Illiteracy,	—	1	1			
Recovered psychosis,	2	—	2			
No disease,	25	21	46			
Deferred,	70	46	116			
Total,				497	667	1,164

It will be noted that 1.20 per cent were cases of general paralysis, 1.03 per cent alcoholic psychoses, 2.66 per cent manic-depressive psychoses, 4.72 per cent dementia præcox, 11.77 per cent psychoneuroses, 1.80 per cent undiagnosed psychoses, and 73.45 per cent without psychosis. Of the not insane group, 1.87 per cent were epileptics, 6.90 per cent retarded, 37.89 per cent mental defectives, and 5.38 per cent showed no disease either mental or physical.

The disposition of these cases is shown in the following table: —

	Males.	Females.	Totals.
Observation in wards recommended,	47	37	84
Commitment to institution for feeble-minded recommended.	30	38	68
Commitment to institution for insane recommended, .	10	10	20
Commitment to penal institution recommended, . .	—	—	—
General hospital care recommended,	16	19	35
Psychopathic out-patient care recommended, . . .	238	274	512
Report and advice given to school,	10	7	17
Report made to court,	17	14	31
Report made and advice given to social agency, . .	37	181	218
Report made and advice given to physician, . . .	6	3	9
Treatment for syphilis recommended,	10	17	27
No treatment,	76	67	143
Totals,	497	667	1,164

It will be noted that 43.99 per cent of these cases were looked upon as being proper cases for supervision and treatment in the out-patient service, 5.84 per cent were recommended for commitment to institutions for the feeble-minded, 12.28 per cent required no treatment, and observation in the wards was recommended in 7.21 per cent. It is interesting to note that in only 1.71 per cent of these cases was commitment to institutions for the insane deemed necessary. Three per cent of the cases were referred to general hospitals for further treatment, and 18.73 per cent of the cases were referred to other social agencies with some report as to their subsequent care.

SOCIAL SERVICE.

The social service department is under the immediate direction of the chief of social service, Miss Helen L. Myrick, and has included two assistants engaged in the routine work of the department, one assigned to the out-patient service, one engaged in the investigation of syphilis, two connected with the Red Cross, two student internes and five student externes. The work of the department has been described by Miss Myrick as follows: —

1. Sources of cases: —

- (a) House medical service, out-patient clinic, other social agencies, friends and relatives, and own initiative.

2. Assignments: —

- (a) After the case is referred it is assigned to one of the social workers in rotation. A rotation sheet is kept for this purpose so that each worker has an equal number of cases.

3. Investigation: —

- (a) After a case is referred the worker makes a folder for the case.
- (b) Copies social facts from the medical record on memorandum sheet for the social record.
- (c) Interviews the doctor in regard to special problems involved in case.
- (d) Interviews patient on the wards for social history and exact names and addresses of references which she notes on social service record.
- (e) Registers the case at the Confidential Exchange of Information and finds out whether it is known to any other social agencies.
- (f) Registers the case in social service.
- (g) Secures history from agencies by looking up any agencies who already know the patient, and getting facts from them. It may be that one of these agencies is in active touch with the patient and his family, in which case that agency secures the information required by the doctor. In many instances, however, the agencies have known the patient in the past, and are not dealing with him at present, in which case we learn all the facts from their records.
- (h) Writes or telephones relatives or friends from whom the doctors wish to secure history.
- (i) Visits neighbors, employers and other original sources to secure history.

4. Morning discussion: —

- (a) At the end of four days every case comes up automatically for morning discussion, which is held every morning from 8.45 to 9.15 A.M. At this time the preliminary investigation is supposed to be completed, and a summary of the case is presented to the social service staff under the headings, economic, health, mental and physical, education, habits and religion, legal. A social analysis is made of the social problems presented, and tentative plans for the future are discussed. At the end of three months every case comes up automatically for discussion, at which time a summary of the history is presented to the staff by the worker, and a summary of the results obtained during the three months is also presented. The original analysis of the social problem is discussed, and if any of the difficulties have been removed we

make a note to that effect, and if any additional difficulties have arisen those are also noted at this time. A discussion is held as to future plans of action.

5. Records: —

- (a) Entries on records are kept in chronological order of all history obtained on each patient and all action taken on each patient. This includes advice from the doctors. These records are kept in social service until the case is closed, when they are filed with the medical records.
- (b) A copy of the record of outside history secured for diagnosis is given the doctor within twenty-four hours after the case is referred.

6. Monthly statistics: —

- (a) The workers keep a statistical sheet on which is noted the name and other statistics of the patient. At the end of each month these statistics are compiled by each worker and then added up for the department as a whole.

7. Expense accounts: —

- (a) Each worker keeps account of her traveling expenses incurred in line of duty. These are compiled on the 23d of each month, and given to the chief executive officer.

8. Meetings: —

- (a) The director of social work of the Commission on Mental Diseases holds monthly meetings the third Friday of every month, lasting about three hours, for discussion of details of psychiatric social work in connection with State hospitals. The chief of social service or one assistant attends these meetings.

The number of cases coming under actual social service supervision during the year was 428. In addition to this a total of 299 cases were reported by the Red Cross workers, 543 by the social worker assigned to the out-patient service, and 532 by the social workers having charge of the investigation of syphilis, under the direction of the Department of Mental Diseases.

An analysis of the work done by the social service department during the year shows the following cases under supervision: —

	Males.	Females.	Totals.
(a) New cases,	159	119	278
(b) Renewed cases,	7	26	38
(c) Continued cases,	71	46	117
(d) Total number of cases,	237	191	428
(e) Cases closed during the year,	218	158	376
(f) Cases under care at end of year,	19	33	52

The source of origin of the new cases was as follows:—

	Males.	Females.	Totals.
(a) Referred by out-patient service,	46	44	90
(b) Referred by house medical service,	100	66	166
(c) Referred by other social agencies,	14	6	20
(d) Referred by own initiative,	—	—	—
(e) Referred by friends and relatives,	1	1	2
Total,	159	119	278

The purposes for which these cases were referred to the social service department were as follows:—

	Males.	Females.	Totals.
(a) Medical history,	88	52	140
(b) Convalescent care:—			
(1) Convalescent home,	—	8	8
(2) Sanatorium,	—	—	—
(3) Vacation,	—	1	1
(c) Assistance in securing employment,	18	8	26
(d) Financial aid,	7	3	10
(e) Institutional care,	5	3	8
(f) Home care,	2	6	8
(g) Special education,	2	—	2
(h) Occupational therapy,	1	—	1
(i) Supervision,	8	12	20
(j) Advice,	28	26	54
Total,	159	119	278

The psychoses of new cases during the year were as follows: —

	Males.	Females.	Totals.
1. Traumatic psychoses,	1	—	1
2. Senile psychoses,	1	—	1
(a) Simple deterioration,	1	—	1
3. Psychoses with cerebral arteriosclerosis,	4	1	5
4. General paralysis,	12	1	13
5. Psychoses with cerebral syphilis,	1	—	1
7. Psychoses with brain tumor,	1	—	1
8. Psychoses with other brain or nervous diseases,	1	—	1
9. Alcoholic psychoses,	4	1	5
(b) Delirium tremens,	1	—	1
(d) Acute hallucinosis,	2	—	2
(e) Chronic hallucinosis,	—	1	1
(g) Chronic paranoid type,	1	—	1
10. Psychoses due to drugs and other exogenous toxins,	1	—	1
(a) Opium, etc.,	1	—	1
12. Psychoses with other somatic diseases,	1	3	4
(a) Delirium with infectious diseases,	1	3	4
13. Manic-depressive psychoses,	7	6	13
(a) Manic type,	4	2	6
(b) Depressive type,	3	4	7
15. Dementia præcox,	30	16	46
(a) Paranoid type,	14	8	22
(b) Catatonic type,	3	—	3
(c) Hebephrenic type,	11	6	17
(d) Simple type,	2	2	4
16. Paranoia or paranoid conditions	7	5	12
17. Epileptic psychoses,	1	—	1
(a) Epileptic deterioration,	1	—	1
18. Psychoneuroses and neuroses,	9	17	26
(a) Hysterical type,	1	2	3
(b) Psychasthenic type,	3	5	8
(c) Neurasthenic type,	5	10	15
20. Psychoses with mental deficiency,	2	1	3
21. Undiagnosed psychoses,	10	11	21
22. Without psychosis,	66	57	123
(a) Epilepsy without psychosis,	7	2	9
(b) Alcoholism without psychosis,	2	—	2
(c) Drug addiction without psychosis,	—	2	2
(d) Psychopathic personality without psychosis,	16	19	35
(e) Mental deficiency without psychosis,	14	19	33
(f) Others,	27	15	42
Conduct disorder,	3	1	4
Hysteria,	2	—	2
Neurosyphilis,	1	2	3
General syphilis,	—	1	1
Syphilitic aortitis,	1	—	1
Myalgia,	1	—	1
Depression,	1	2	3
Organic brain disease,	—	1	1
Moral delinquent,	1	—	1
Delirium of unknown origin,	1	—	1
Cardio-vascular disorder,	1	—	1
Neuritis,	1	—	1
Language difficulty,	1	—	1
Cerebral arteriosclerosis,	—	1	1
Chorea minor,	2	1	3

	Males.	Females.	Totals.
22. Without psychosis — <i>Con.</i>			
(f) Others — <i>Con.</i>			
Stubborn child,	1	—	1
Unemployment,	1	—	1
Domestic difficulties,	2	2	4
Marital incompatibility,	—	1	1
Suicidal threats,	1	—	1
Retarded,	2	—	2
Previous psychosis undifferentiated,	1	—	1
Recovered from previous psychosis,	1	—	1
Assault charge,	1	—	1
Recorded delirium,	—	1	1
Deferred,	—	1	1
Infectious disease,	1	—	1
Pernicious anemia,	—	1	1
Total,	159	119	278

The social problems presented were as follows:—

	Males.	Females.	Totals.
(a) Disease:—			
(1) Mental,	119	91	210
(2) Physical,	4	2	6
(b) Poverty,	2	6	8
(c) Criminality,	5	4	9
(d) Juvenile delinquency,	6	1	7
(e) Sex offense,	5	1	6
(f) Alcoholism,	5	1	6
(g) Family dissension,	10	7	17
(h) Ignorance,	2	5	7
(i) Bad environment,	1	—	1
(j) No social problem,	—	1	1
Total,	159	119	278

The nature of the service rendered was as follows:—

	Males.	Females.	Totals.
(a) Medical history,	90	51	141
(b) Convalescent care:—			
(1) Convalescent home,	—	2	2
(2) Sanatorium,	—	—	—
(3) Vacation,	—	1	1
(c) Assistance in securing employment,	9	3	12
(d) Financial aid,	7	4	11
(e) Arrangements for institutional care,	6	3	9
(f) Arrangements for home care,	1	3	4
(g) Arrangements for special education,	—	1	1
(h) Occupational therapy,	1	—	1
(i) Supervision,	2	9	11
(j) Advice,	43	42	85
(k) No service rendered,	—	—	—
Total,	159	119	278

The duration of supervision of cases closed during the year was as follows:—

	Males.	Females.	Totals.
(a) One week or less,	62	28	90
(b) One week to two weeks,	28	26	54
(c) Two weeks to one month,	32	31	63
(d) One to two months,	42	22	64
(e) Two to three months,	10	11	21
(f) Three to six months,	21	20	41
(g) Six months to one year,	16	12	28
(h) Over one year,	7	8	15
Total,	218	158	376

The Red Cross service has been extended to all ex-service men who have been in the wards of the hospital during the year. These cases have been under the immediate supervision of the American Red Cross. Their work, as described by Miss Myrick, "consists of making a brief social examination of every ex-service man who is a patient; looking up history on any of these patients for whom the doctor may need such history to help in the diagnosis; looking up matters of compensation and war risk insurance; steering patients needing social care to home service section of the Red Cross upon their discharge from the department; and of doing social case work with those who need special supervision." This department has had a total of 299 cases under its supervision during the year.

The duty of the social worker assigned to the out-patient service is to see that the patients coming under the supervision of this department report for instructions and treatment to the physician in charge at such time as may be deemed necessary. It has been customary to refer to this as "follow-up service." The social workers connected with the syphilis service of the Department of Mental Diseases have had a total of 199 cases under their supervision during the year, including 192 new cases. Their work covered 80 cases in the wards of the psychopathic department, and 23 reporting at the out-patient service. Miss Clare W. Butler has carried on special social

service investigation of mental diseases and defects in industrial workers. This work has been supported heretofore by private contributions, but will be carried on in the future by the Harvard Medical School.

Special work done by the department during the year includes the instruction of several students from the Smith College Training School for Social Work. These students all had nine months' practical experience. Lectures were given by the chief of social service during the year to groups of third-year Harvard Medical School students on social service topics. She also gave some instruction to students at Wellesley College, nurses in the Public Health Service, Red Cross students and the Federation of Placement Workers.

GENERAL STATEMENT.

Attention should be called to the further amplification and systematization of the statistical reports of the work done by the department, which are printed separately in full for the current year for the first time. These will be found on pages 129 to 153, inclusive. Unusual importance should be attached to an analysis of the activities of this institution as the only one of the psychopathic hospitals which comes in contact with practically all of the incipient mental diseases of an entire community, — one of the largest cities in this country, — cases requiring hospital treatment, but which do not come within the purview of the courts and are not committable as insane.

Occupational therapy has been developed materially during the year and is now an important factor in the treatment of the patients in the wards. Many of the patients have shown a remarkable interest in the occupational opportunities offered them, notwithstanding their brief residence in the hospital. The instruction given has included the making of rugs, mats, nets, weaving, basket making, chair repairing, needlework, embroidery, hemstitching, general repairing, etc. This work has been conducted largely on the upper floor of the building, — a very enjoyable place during the summer. Music has usually been furnished during the latter part of the afternoon. Considerable work has also been done in the wards.

Hydrotherapeutic treatments have also been used extensively

during the year. The hydriatic rooms are in active operation throughout the week, with the exception of Sundays, the morning being devoted to the men and the afternoon to the women. The extension of this work is shown by the following report of treatments given during the year: —

Electric cabinet and shower treatments,	1,978
Steam cabinet and shower,	957
General massage,	61
Showers,	1,303
Tub baths,	43
Total,	4,342

It is unfortunate that the continuous bath rooms have not been in very general use, owing to a deplorable shortage in the number of nurses. The roentgenologist has made a large number of examinations during the year, averaging 35 per month.

The work of painting the building was completed during the year, and it has been very much improved in appearance.

The expenditures for the maintenance of the department during the fiscal year were as follows: —

	Amount expended.	Per Capita.	Percentage of Total.
Personal service,	\$87,745 68	\$1,011 71	52.81
Travel, transportation and office expenses, . .	3,229 36	37 23	1.94
Food,	40,897 49	471 55	24.61
Religious instruction,	—	—	—
Clothing and materials,	1,634 02	18 84	.98
Furnishings and household supplies, . . .	9,519 04	109 76	5.73
Medical and general care,	4,091 46	47 17	2.46
Heat, light and power,	14,406 76	166 11	8.67
Farm and stable,	9 00	10	.01
Grounds,	135 11	1 56	.08
Repairs, ordinary,	4,489 06	51 76	2.70
Repairs and renewals,	—	—	—
Total,	\$166,156 98	\$1,915 79	100.00

Based on the average daily population for the year (86.73), the per capita cost of maintenance for the year was \$1,915.79, or \$36.84 per week. Attention has already been called to the fact that the cost of maintenance for a psychopathic department is necessarily out of all proportion to the expenses involved in the operation of an institution conducted along State hospital lines. A much larger number of employees is necessary, a more ample medical staff is required, and a much more expensive type of care is given to the patients. The expenditures necessary are more properly comparable to those of a general hospital. Standards of care are necessarily higher than those of institutions designed exclusively for the care and custody of committable cases.

THE MEDICAL STAFF.

There has been a large number of changes in the personnel of the staff during the past year.

I regret to report the resignation of the chief executive officer, Dr. Arthur P. Noyes, which occurred on April 13, 1920. Dr. Noyes has accepted the position of first assistant physician at St. Elizabeth's Hospital in Washington, D. C., where a much wider field of opportunity will be open to him. The work of the chief executive officer is very difficult. The duties of this position were performed in such an excellent way by Dr. Noyes that his resignation will constitute a very decided loss to the hospital.

Dr. Lawson G. Lowrey, the chief medical officer of the department, resigned on June 1, 1920, to accept an appointment at the Psychopathic Hospital, Iowa City, Iowa. This appointment constitutes a well-merited promotion and a recognition of several years of successful work done in this institution.

Dr. Clifford G. Rounsefell, executive officer, resigned on Oct. 14, 1920, to accept an appointment in the Public Health Service.

Dr. John H. Travis, medical officer, resigned on Feb. 29, 1920, to accept an appointment on the staff of the Augusta State Hospital, Augusta, Me.

Dr. William M. Dobson, medical officer, resigned on March 23, 1920, to enter the United States Public Health Service.

Dr. Thomas P. Brennan, appointed assistant medical officer on March 17, 1920, resigned on May 25, 1920, to accept an appointment at the Psychopathic Hospital, Iowa City, Iowa.

Dr. Benjamin L. Elliott, assistant medical officer, resigned on Feb. 29, 1920, to enter the service of the American Red Cross.

Dr. Newman Cohen, assistant medical officer, resigned on Dec. 12, 1919.

Dr. Lloyd V. Thompson, medical interne, was transferred on Dec. 4, 1919, to the staff of the Massachusetts Psychiatric Institute.

Dr. Annette McIntire, who was appointed assistant medical officer on June 19, 1920, resigned Oct. 8, 1920, to accept an appointment on the staff of the California State Hospital.

Dr. Arabella J. Feldkamp, assistant medical officer, resigned on Oct. 3, 1920, to enter the service of the Mental Hygiene Board in West Virginia.

Dr. Goodwin A. Johnson, assistant medical officer, resigned on Sept. 11, 1920, to enter the United States Public Health Service.

Dr. Lewis M. Walker was appointed medical officer March 8, 1920.

Dr. John F. O'Brien was appointed medical officer April 8, 1920.

Dr. Frank J. Gale was appointed assistant executive officer March 9, 1920.

Dr. John R. Frank was appointed assistant medical officer June 1, 1920.

Dr. Max E. Witte, Jr., was appointed graduate interne Aug. 1, 1920.

Dr. Harlan L. Paine, for some time an assistant to the Director of the Commission on Mental Diseases, was appointed chief executive officer on April 14, 1920, to succeed Dr. Arthur P. Noyes, resigned. Dr. Paine has had several years of experience in the State hospital service, and brings to the institution a thorough familiarity with the duties of his position.

The following articles were published by Dr. Lawson G. Lowrey during the year:—

Further Observations on Neurosyphilis and the Psychosis. Archives of Neurology and Psychiatry, Vol. 3, May, 1920.

The Technique of Lumbar Puncture. Boston Medical and Surgical Journal, Vol. CLXXXII, May, 1920.

Correlation of Data in Cases seen at the Psychopathic Department and Foxborough State Hospital. Boston Medical and Surgical Journal, Vol. CLXXXIII, September, 1920.

Statistical Classifications as applied to the Work of Temporary Care Institutions. Transactions of the American Medico-Psychological Association, 1919.

The Effect upon the Blood Pressure of the Injection of Adrenalin in Cases of Dementia Præcox (with W. W. Wright). Boston Medical and Surgical Journal, Vol. CLXXXIII, August, 1920.

Pupillary Disturbances in 275 Cases of Neurosyphilis (with Mary K. Benedict). Journal of Nervous and Mental Diseases, Vol. 52, No. 2, August, 1920.

An Analysis of Suicidal Attempts. To appear shortly in the Journal of Nervous and Mental Diseases.

Paranoid Mania. Journal of Nervous and Mental Diseases, Vol. 52, No. 14, October, 1920.

Some Common Errors in Psychiatric Diagnosis. American Journal of Insanity, October, 1920.

A Study of the Diagnoses in Cases seen at the Psychopathic and Hospital Departments of the Boston State Hospital. Read at the June, 1920 meeting of the American Medical and Surgical Associations. To appear in the Transactions, and in the American Journal of Insanity for January, 1921.

Dr. Lawson G. Lowrey, during his term of service as chief medical officer, carried on as usual the clinical and ward instruction of the students of the Harvard Medical School, at which place he has served for several years as an instructor in neuropathology and psychiatry. Clinical lectures were also given by the professor of psychiatry of the Tufts Medical School, assisted by the members of the staff at the psychopathic department. Clinical instruction has also been given by Dr. C. Macfie Campbell, professor of psychiatry at the Harvard Medical School.

The numerous changes which have taken place in the personnel of the medical staff of the psychopathic department

and the absence during a considerable part of the year of a chief medical officer, have imposed numerous additional duties upon the chief executive officer, Dr. Harlan L. Paine. To his activities and to the unusual administrative ability of his predecessor, Dr. Arthur P. Noyes, must be attributed in a large degree the conclusion of the last and most successful year in the history of the psychopathic department.

Respectfully submitted,

JAMES V. MAY,

Superintendent.

Nov. 30, 1920.

VALUATION.

Nov. 30, 1920.

REAL ESTATE.

Land (235 acres),	\$508,500 00
Buildings,	2,980,743 75
	<hr/>
	\$3,489,243 75

PERSONAL PROPERTY.

Food,	\$8,633 45
Clothing and materials,	19,147 00
Furnishings and household supplies,	146,057 99
Medical and general care,	8,548 80
Heat, light and power,	9,555 87
Farm,	15,933 91
Stable,	4,729 01
Repairs,	11,269 46
	<hr/>
	\$223,875 49

SUMMARY.

Real estate,	\$3,489,243 75
Personal property,	223,875 49
	<hr/>
	\$3,713,119 24

TREASURER'S REPORT.

To the Commissioner of Department of Mental Diseases.

I respectfully submit the following report of the finances of this institution for the fiscal year ending Nov. 30, 1920: —

CASH ACCOUNT.		
Balance Dec. 1, 1919,		\$16,236 52

Receipts.

Institution Receipts.

Board of inmates: —

Private,	\$25,619 35	
Reimbursements, insane,	49,501 10	
		\$75,120 45

Sales: —

Food,	\$1,141 74	
Clothing and materials,	107 94	
Furnishings and household supplies,	184 34	
Heat, light and power,	181 62	
Farm and stable: —		
Pigs and hogs,	\$188 18	
Sundries,	507 15	
		695 33
Repairs, ordinary,	8 60	
Waste paper,	28 42	
		2,347 99

Miscellaneous receipts: —

Interest on bank balances,	\$714 14	
Sundries,	301 69	
		1,015 83
		78,484 27

Receipts from Treasury of Commonwealth.

Maintenance appropriations: —

Balance of 1919,	\$9,212 88	
Advance money (amount on hand November 30),	45,000 00	
Approved schedules of 1920,	795,469 36	
		849,682 24
Special appropriations,		290,884 64

Total,	\$1,235,287 67
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Payments.

To treasury of Commonwealth:—

Institution receipts,	\$78,484 27
Refunds, account maintenance,	224 68

\$78,708 95

Maintenance appropriations:—

Balance November schedule, 1919,	\$25,449 40
Eleven months' schedules, 1920,	\$795,469 36
Less returned,	224 68

795,244 69

November advances,	32,827 27
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853,521 35

Special appropriations, approved schedules,	290,884 64
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Balance, Nov. 30, 1920:—

In bank,	\$11,353 54
In office,	819 19

12,172 73

Total,	\$1,235,287 67
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MAINTENANCE.

Balance from previous year, brought forward,	\$102 75
Appropriation, current year,	863,800 00

Total,	\$863,902 75
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Expenses (as analyzed below),	854,689 01
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Balance reverting to treasury of Commonwealth,	\$9,213 74
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Analysis of Expenses.

Personal services:—

James V. May, superintendent,	\$5,050 00
Medical,	33,124 24
Administration,	39,636 24
Kitchen and dining-room service,	15,498 76
Domestic,	28,866 62
Ward service (male),	52,918 99
Ward service (female),	69,293 42
Industrial and educational department,	5,079 33
Engineering department,	35,308 25
Repairs,	14,839 43
Farm,	6,515 16
Stable, garage and grounds,	8,942 07

\$315,072 51

Religious instruction:—

Catholic,	\$938 33
Hebrew,	420 00
Protestant,	415 00

1,773 33

Travel, transportation and office expenses:—

Advertising,	\$1,053 06
Postage,	493 40
Printing and binding,	1,640 83

Amounts carried forward,	\$3,187 29	\$316,845 84
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Amounts brought forward, \$3,187 29 \$316,845 84

Travel, transportation and office expenses — *Con.*

Printing annual report,	493 62	
Stationery and office supplies,	5,347 10	
Telephone and telegraph,	3,399 17	
Travel,	1,736 76	
		14,163 94

Food:—

Flour,	\$28,316 87	
Cereals, rice, meal, etc.,	5,321 76	
Bread, crackers, etc.,	1,902 05	
Peas and beans (canned and dried),	4,195 41	
Macaroni and spaghetti,	661 03	
Potatoes,	11,375 87	
Meat,	60,601 73	
Fish (fresh, cured and canned),	8,641 42	
Butter,	12,164 18	
Butterine, etc.,	10,192 91	
Peanut butter,	8 57	
Cheese,	1,999 26	
Coffee,	3,072 34	
Coffee substitutes,	805 92	
Tea,	1,123 49	
Cocoa,	264 62	
Whole milk,	42,384 52	
Milk (condensed, evaporated, etc.),	3,100 92	
Eggs (fresh),	13,361 45	
Sugar (cane),	10,994 60	
Sugar (maple, etc.),	78 59	
Fruit (fresh),	3,990 96	
Fruit (dried and preserved),	6,130 38	
Lard and substitutes,	1,955 91	
Molasses and syrups,	1,612 12	
Vegetables (fresh),	7,993 66	
Vegetables (canned and dried),	2,336 99	
Seasonings and condiments,	2,344 75	
Yeast, baking powder, etc.,	640 79	
		247,573 07

Clothing and materials:—

Boots, shoes and rubbers,	\$7,246 88	
Clothing (outer),	13,907 78	
Clothing (under),	7,060 51	
Dry goods for clothing,	952 35	
Hats and caps,	403 00	
Leather and shoe findings,	671 47	
Machinery for manufacturing,	165 79	
Socks and smallwares,	1,825 86	
		32,233 64

Furnishings and household supplies:—

Beds, bedding, etc.,	\$22,353 08	
Carpets, rugs, etc.,	3,156 32	
Crockery, glassware, cutlery, etc.,	4,529 58	
Dry goods and smallwares,	346 15	

Amounts carried forward, \$30,385 13 \$610,816 49

<i>Amounts brought forward,</i>	\$30,385 13	\$610,816 49
Furnishings and household supplies — <i>Con.</i>		
Electric lamps,	1,886 70	
Fire hose and extinguishers,	47	
Furniture, upholstery, etc.,	5,528 14	
Kitchen and household wares,	7,587 14	
Laundry supplies and materials,	6,134 61	
Lavatory supplies and disinfectants,	3,849 39	
Machinery for manufacturing,	1 75	
Table linen, paper napkins, towels, etc.,	3,604 99	
		58,978 32
Medical and general care: —		
Books, periodicals, etc.,	\$314 78	
Entertainments, games, etc.,	1,045 94	
Funeral expenses,	311 80	
Gratuities,	835 85	
Ice and refrigeration,	705 68	
Laboratory supplies and apparatus,	965 32	
Manual training supplies,	16 98	
Medicines (supplies and apparatus),	6,515 85	
Medical attendance (extra),	521 50	
Patients boarded out,	575 42	
Return of runaways,	9 03	
School books and supplies,	33 00	
Sputum cups, etc.,	45 00	
Tobacco, pipes, matches,	1,865 49	
Water,	5,414 87	
Rent,	1,200 00	
		20,376 51
Heat, light and power: —		
Coal (bituminous),	\$95,356 97	
Freight and cartage,	13,632 45	
Coal (screenings),	1,230 41	
Coal (anthracite),	1,592 13	
Freight and cartage,	2 65	
Electricity,	157 02	
Gas,	716 40	
Oil,	849 65	
Operating supplies for boilers and engines,	1,037 93	
		114,575 61
Farm: —		
Bedding materials,	\$17 10	
Blacksmithing and supplies,	774 59	
Carriages, wagons and repairs,	655 49	
Fencing materials,	74 35	
Fertilizers,	1,790 82	
Grain, etc.,	3,866 00	
Harnesses and repairs,	214 33	
Labor (not on pay roll),	575 00	
Road work and materials,	9 00	
Spraying materials,	4 95	
Stable and barn supplies,	67 88	
<i>Amounts carried forward,</i>	\$8,049 51	\$804,746 93

<i>Amounts brought forward,</i>	\$8,049 51	\$804,746 93
Farm — <i>Con.</i>		
Tools, implements, machines, etc.,	2,911 72	
Trees, vines, seeds, etc.,	621 15	
Veterinary services, supplies, etc.,	650 56	
		12,232 94
Garage, stable and grounds: —		
Motor vehicles,	\$4,670 74	
Automobile repairs and supplies,	5,057 82	
Blacksmithing and supplies,	33 50	
Fertilizers,	2 45	
Grain,	885 00	
Harnesses and repairs,	8 80	
Labor (not on pay roll),	339 00	
Rent,	60 00	
Road work and materials,	223 20	
Spraying materials,	51 39	
Stable supplies,	57 46	
Tools, implements, machines, etc.,	330 84	
Trees, vines, seeds, etc.,	1,364 15	
		13,084 35
Repairs, ordinary: —		
Cement, lime, crushed stone, etc.,	\$2,528 08	
Electrical work and supplies,	2,421 28	
Hardware, iron, steel, etc.,	3,762 51	
Lumber, etc. (including finished products),	1,313 50	
Paint, oil, glass, etc.,	3,767 48	
Plumbing and supplies,	1,885 55	
Roofing and materials,	3,390 44	
Steam fittings and supplies,	1,858 32	
Tools, machines, etc.,	46 69	
Boilers, repairs,	1,416 34	
Dynamos, repairs,	73 21	
Engines, repairs,	175 21	
		22,638 61
Repairs and renewals: —		
Universal press,	\$334 75	
Marking machine,	361 97	
Laundry tubs,	729 92	
Moving-picture machine and booth,	559 54	
		1,986 18
Total expenses for maintenance,		\$854,689 01

RESOURCES AND LIABILITIES.

Resources.

Cash on hand,	\$12,172 73	
November cash vouchers (paid from advance money),		
account of maintenance,	32,827 27	
		\$45,000 00
Due from treasury of Commonwealth from available appropriation		
account November, 1920, schedule,	14,444 33	

\$59,444 33

Liabilities.

Schedule of November bills,	\$59,444 33
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PER CAPITA.

During the year the average number of inmates has been 1,813.69.

Total cost for maintenance, \$854,689.01.

Equal to a weekly per capita cost of \$9.06.

Receipt from sales, \$2,347.99.

Equal to a weekly per capita of \$0.0248.

All other institution receipts, \$76,136.28.

Equal to a weekly per capita of \$0.8072.

Respectfully submitted,

ADELINE J. LEARY,

Treasurer.

Examined and found correct as compared with the records in the office of the Auditor of the Commonwealth.

ALONZO B. COOK,

Auditor.

STATISTICAL TABLES

AS ADOPTED BY AMERICAN MEDICO-PSYCHOLOGICAL
ASSOCIATION

PRESCRIBED BY MASSACHUSETTS DEPARTMENT OF MENTAL DISEASES

STATISTICAL TABLES.

HOSPITAL DEPARTMENT.

TABLE 1. *General Information.*

1. Date of opening as an institution for the insane: Dec. 11, 1839.
2. Type of institution: State since Dec. 1, 1908.
3. Hospital plant:—
Value of hospital property:—
Real estate including buildings, \$2,906,568 75
Personal property, 198,176 11
Total, \$3,104,744 86
Total acreage of hospital property owned, 232.87.
Total acreage under cultivation during previous year, 147.36.

	ACTUALLY IN SERVICE AT END OF YEAR.			VACANCIES AT END OF YEAR.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
4. Officers and employees:—						
Superintendents,	1	—	1	—	—	—
Assistant superintendents,	1	—	1	—	—	—
Assistant physicians,	5	3	8	1	—	1
Pathologist,	—	—	—	1	—	1
Clinical assistants,	—	—	—	—	—	—
Total physicians,	7	3	10	2	—	2
Stewards,	1	—	1	—	—	—
Resident dentists,	1	—	1	—	—	—
Graduate nurses,	—	19	19	—	—	—
Other nurses and attendants,	86	77	163	4	26	30
Teachers of occupational therapy,	3	3	6	—	1	1
Social workers,	—	2	2	—	—	—
All other officers and employees,	75	60	135	4	6	10
Total officers and employees,	173	164	337	10	33	43

TABLE 1. — *General Information* — Concluded.

	ACTUALLY IN INSTI- TUTION.			ABSENT FROM INSTI- TUTION BUT STILL ON BOOKS.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
5. Census of patient population at end of year: —						
White: —						
Insane,	753	979	1,732	87	160	247
Epileptics,	—	—	—	—	—	—
Mental defectives,	—	—	—	—	—	—
Alcoholics,	—	—	—	—	—	—
Drug addicts,	—	—	—	—	—	—
Neurosyphilitics (without psy- chosis),	—	—	—	—	—	—
All other cases,	—	—	—	—	—	—
Total,	753	979	1,732	87	160	247
Colored: —						
Insane,	14	17	31	—	6	6
Epileptics,	—	—	—	—	—	—
Mental defectives,	—	—	—	—	—	—
Alcoholics,	—	—	—	—	—	—
Drug addicts,	—	—	—	—	—	—
Neurosyphilitics (without psy- chosis),	—	—	—	—	—	—
All other cases,	—	—	—	—	—	—
Total,	14	17	31	—	6	6
Grand total,	767	996	1,763	87	166	253
6. Patients employed in industrial classes or in general hospital work on date of report,	Males.	Females.	Totals.			
	440	344	784			
7. Average daily number of all patients actually in institution during year,	751.95	949.39	1,701.34			
8. Voluntary patients admitted during year,	—	6	6			
9. Persons given advice or treatment in out-patient clinics during year,	—	—	—			
Average daily number of patients on visit,	83.02	152.32	235.34			
Average daily number of patients on escape,	4.93	1.70	6.63			
Average daily number of patients in family care,	—	9.28	9.28			

TABLE 2. — *Financial Statement.*

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Insane Patient Population for Year beginning Oct. 1, 1919, and ending Sept. 30, 1920.*

	Males.	Females.	Totals.
1. Insane patients on books of institution at beginning of institution year,	803	1,084	1,887
2. Admissions during year: —			
(a) First admissions,	48	109	157
(b) Readmissions,	20	25	45
Received from psychopathic department,	180	170	350
(c) Transfers from other institutions for mental diseases,	3	6	9
3. Total received during year,	251	310	561
4. Total on books during year,	1,054	1,394	2,448
5. Discharged from books during year: —			
(a) As recovered,	21	40	61
(b) As improved,	38	57	95
(c) As unimproved,	11	16	27
(d) As without psychosis,	1	2	3
(e) Transferred to other institutions for mental diseases,	11	10	21
To psychopathic department,	2	—	2
(f) Died during year,	116	107	223
6. Total discharged, transferred and died during year,	200	232	432
7. Insane patients remaining on books of institution at end of institution year,	854	1,162	2,016

TABLE 3. — *Movement of Population for the Entire Institution Oct. 1, 1919, to Sept. 30, 1920.*

	INSANE.						TEMPORARY CARE.					
	HOSPITAL.			PSYCHOPATHIC DEPARTMENT.			HOSPITAL.			PSYCHOPATHIC DEPARTMENT.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Patients on books at beginning of institution year,	803	1,084	1,887	57	67	124	-	-	-	17	11	28
Admissions during the year: —												
First admissions,	48	109	157	274	263	537	-	-	-	466	406	872
Readmissions,	20	25	45	98	69	167	-	-	-	98	79	177
Total admissions,	68	134	202	372	332	704	-	-	-	564	485	1,049
Transfers from other institutions for insane,	3	6	9	-	1	1	-	-	-	-	-	-
From hospital department,	-	-	-	2	-	2	-	-	-	-	-	-
From psychopathic department,	180	170	350	-	-	-	1	-	1	-	-	-
Committed from temporary care,	-	-	-	7	6	13	-	-	-	-	-	-
Temporary care from voluntary,	-	-	-	-	-	-	-	-	-	-	1	1
Total received during the year,	251	310	561	381	339	720	1	-	1	564	486	1,050
Total under treatment during the year,	1,054	1,394	2,448	438	406	844	1	-	1	581	497	1,078

Discharged from books during the year:—

As recovered,	21	40	61	5	4	9	26	44	70	-	-	-	21	11	32	21	11	32
As improved,	38	57	95	39	36	75	77	93	170	-	-	-	74	43	117	74	43	117
As unimproved,	11	16	27	56	42	98	67	58	125	-	-	-	312	252	564	312	252	564
As without psychosis,	1	2	3	61	49	110	62	51	113	1	-	-	132	159	291	133	159	292
Transferred to hospital department,	-	-	-	180	170	350	-	-	-	-	-	-	1	-	1	-	-	-
Transferred to psychopathic department,	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transferred to other institutions for insane,	11	10	21	3	6	9	14	16	30	-	-	-	-	-	-	-	-	-
From voluntary to temporary care,	-	-	-	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-
From temporary care to committed,	-	-	-	-	-	-	-	-	-	-	-	-	7	6	13	7	6	13
Died during the year,	116	107	223	11	10	21	127	117	244	-	-	-	18	15	33	18	15	33
Total discharged and died during the year,	200	232	432	355	318	673	373	380	753	1	-	-	565	486	1,051	565	486	1,051
Patients remaining on books at end of institution year,	854	1,162	2,016	83	88	171	937	1,250	2,187	-	-	-	16	11	27	16	11	27

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions for the Year ending Sept. 30, 1920.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	Males.	Females.	Totals.	Fathers.	Mothers.	Both Parents.	Fathers.	Mothers.	Both Parents.
United States,	27	52	79	9	10	9	25	19	17
Austria,	1	1	2	1	1	1	1	1	1
Canada, ¹	4	16	20	1	2	1	8	11	8
England,	1	2	3	1	1	—	4	4	3
Germany,	—	2	2	1	—	—	3	3	3
Holland,	—	1	1	—	—	—	1	1	1
Ireland,	7	23	30	11	10	10	39	38	36
Italy,	1	3	4	1	1	1	2	2	2
Poland,	—	2	2	—	—	—	2	2	2
Russia,	4	3	7	6	6	6	3	3	3
Scotland,	1	—	1	2	2	2	3	2	2
South America,	—	—	—	—	—	—	—	1	—
Sweden,	1	1	2	1	1	1	1	1	1
Turkey in Europe,	1	1	2	1	1	1	—	—	—
West Indies, ²	—	2	2	—	—	—	2	1	1
Unascertained,	—	—	—	13	13	13	15	20	13
Total,	48	109	157	48	48	45	109	109	93

¹ Includes Newfoundland.² Except Cuba and Porto Rico.TABLE 5. — *Citizenship of First Admissions for the Year ending Sept. 30, 1920.*

	Males.	Females.	Totals.
Citizens by birth,	27	52	79
Citizens by naturalization,	7	19	26
Aliens,	14	24	38
Citizenship unascertained,	—	14	14
Total,	48	109	157

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1920.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	-	-	-	1	-	1
2. Senile, total,	-	-	-	11	33	44
(a) Simple deterioration,	9	16	25	-	-	-
(b) Presbyophrenic type,	-	-	-	-	-	-
(c) Delirious and confused states,	-	1	1	-	-	-
(d) Depressed and agitated states in addition to deterioration,	-	1	1	-	-	-
(e) Paranoid states in addition to deterioration,	2	15	17	-	-	-
(f) Presenile types,	-	-	-	-	-	-
3. With cerebral arteriosclerosis,	-	-	-	10	19	29
4. General paralysis,	-	-	-	6	7	13
5. With cerebral syphilis,	-	-	-	1	-	1
6. With Huntington's chorea,	-	-	-	-	1	1
7. With brain tumor,	-	-	-	1	-	1
8. With other brain or nervous diseases, total,	-	-	-	-	-	-
Cerebral embolism,	-	-	-	-	-	-
Paralysis agitans,	-	-	-	-	-	-
Meningitis, tuberculous or other forms,	-	-	-	-	-	-
Multiple sclerosis,	-	-	-	-	-	-
Tabes,	-	-	-	-	-	-
Acute chorea,	-	-	-	-	-	-
Other conditions,	-	-	-	-	-	-
9. Alcoholic, total,	-	-	-	1	3	4
(a) Pathological intoxication,	-	-	-	-	-	-
(b) Delirium tremens,	-	-	-	-	-	-
(c) Acute hallucinosis,	-	2	2	-	-	-
(d) Acute paranoid type,	1	-	1	-	-	-
(e) Korsakow's psychosis,	-	-	-	-	-	-
(f) Chronic hallucinosis,	-	1	1	-	-	-
(g) Chronic paranoid type,	-	-	-	-	-	-
(h) Alcoholic deterioration,	-	-	-	-	-	-
(i) Other types, acute or chronic,	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins, total,	-	-	-	-	-	-
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	-	-	-	-	-	-
(b) Metals, as leads, arsenic, etc.,	-	-	-	-	-	-
(c) Gases,	-	-	-	-	-	-
(d) Other exogenous toxins,	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-
12. With other somatic diseases, total,	-	-	-	1	5	6
(a) Delirium with infectious diseases,	-	-	-	-	-	-
(b) Post-infectious psychoses,	-	-	-	-	-	-
(c) Exhaustion delirium,	-	2	2	-	-	-
(d) Delirium of unknown origin,	-	-	-	-	-	-
(e) Diseases of the ductless glands,	-	-	-	-	-	-
(f) Cardio-renal disease,	-	2	2	-	-	-
(g) Other diseases or conditions,	1	1	2	-	-	-
Influenza,	1	-	1	-	-	-
Encephalitis lethargica,	-	1	1	-	-	-
13. Manic-depressive, total,	-	-	-	1	10	11
(a) Manic type,	-	2	2	-	-	-
(b) Depressive type,	1	7	8	-	-	-
(c) Stupor,	-	-	-	-	-	-
(d) Mixed type,	-	1	1	-	-	-
(e) Circular type,	-	-	-	-	-	-
14. Involution melancholia,	-	-	-	1	1	2

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1920 — Concluded.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total,				10	11	21
(a) Paranoid type,	4	6	10			
(b) Katatonic type,	3	3	6			
(c) Hebephrenic type,	1	2	3			
(d) Simple type,	2	1	2			
16. Paranoia and paranoid conditions,				1	12	13
17. Epileptic, total,				-	2	2
(a) Deterioration,		2	2			
(b) Clouded states,	-	-	-			
(c) Other conditions,	-	-	-			
18. Psychoneuroses and neuroses, total,				-	-	-
(a) Hysterical type,	-	-	-			
(b) Psychasthenic type,	-	-	-			
(c) Neurasthenic type,	-	-	-			
(d) Anxiety neuroses,	-	-	-			
19. With psychopathic personality,				-	1	1
20. With mental deficiency,				1	3	4
21. Undiagnosed,				2	1	3
22. Without psychosis, total,				-	-	-
(a) Epilepsy without psychosis,	-	-	-			
(b) Alcoholism without psychosis,	-	-	-			
(c) Drug addiction without psychosis,	-	-	-			
(d) Psychopathic personality without psychosis,	-	-	-			
(e) Mental deficiency without psychosis,	-	-	-			
(f) Others,	-	-	-			
Total,				48	109	157

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

RACE.	TOTAL.			TRAUMATIC.			SENILE.			WITH CEREBRAL SCLEROSIS.			GENERAL PARALYSIS.			WITH CEREBRAL SYPHILIS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black),	1	4	5	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-
Armenian,	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Dutch and Flemish,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
English,	4	44	48	3	14	17	-	14	17	-	-	7	-	-	3	-	-	3
German,	1	2	3	-	-	1	-	1	1	1	1	2	-	-	-	-	-	-
Greek,	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew,	5	-	5	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Irish,	13	41	54	2	13	15	2	13	15	4	8	12	1	3	4	1	-	1
Italian, ¹	1	3	4	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-
Magyar,	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian, ²	1	1	2	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Scotch,	2	2	4	1	1	2	-	1	2	1	-	1	-	-	-	-	-	-
Slavonic, ³	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed,	13	3	16	5	1	6	-	1	6	2	2	2	1	1	1	-	-	1
Race unascertained,	4	-	4	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Total,	48	109	157	11	33	44	1	33	44	10	19	29	6	7	13	1	-	1

¹ Includes "North" and "South."² Norwegians, Danes and Swedes.³ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920 — Continued.*

RACE.	PSYCHOSES.											
	WITH HUNTINGTON'S CHOREA.			WITH BRAIN TUMOR.			ALCOHOLIC.			WITH OTHER SOMATIC DISEASES.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black),												
Armenian,												
Dutch and Flemish,												
English,								3			4	
German,												
Greek,												
Hebrew,												
Irish,							1		2			
Italian, ¹		1	1				1	1				
Magyar, ²												
Scandinavian, ²												
Scotch,												
Slavonic, ³												
Mixed,				1		1						
Race unascertained,												
Total,	-	1	1	1	-	1	1	3	4	1	5	6
										1	10	11
										1	1	2

¹ Includes "North" and "South."² Norwegians, Danes and Swedes.³ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920 — Concluded.*

RACE.	PSYCHOSES.											
	DEMENTIA PRECOX.			PARANOIA AND PARANOID CONDITIONS.			EPILEPTIC.			WITH PSYCHO- PATHIC PERSONALITY.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black),	.	.	.	.	.	2	.	.	.	.	.	.
Armenian,	.	1	1	.	.	2	.	.	.	.	.	.
Dutch and Flemish,	.	.	.	.	.	.	.	.	.	.	.	.
English,	1	4	5	.	2	2	.	2	.	.	1	1
German,	.	.	.	.	.	.	.	.	.	.	.	.
Greek,	3	.	3	1	.	5	.	.	1	.	.	1
Hebrew,	.	.	.	.	.	6	.	.	2	.	.	2
Irish,	1	2	3	1	.	1	.	.	.	.	.	.
Italian, ¹	.	.	.	.	.	1	.	.	.	.	.	.
Magyar,	.	1	1	.	.	.	.	.	.	.	.	.
Scandinavian, ²	.	1	1	.	.	.	.	.	.	.	.	.
Scotch,	1	1	2	.	.	.	.	.	.	1	.	1
Slavonic, ³	2	1	3	.	.	2	.	.	.	.	.	.
Mixed,	2	.	2	.	.	.	.	.	.	.	.	.
Race unascertained,	.	.	.	.	.	.	.	.	.	.	.	.
Total,	10	11	21	1	12	13	.	2	2	1	3	4
										2	1	3

¹ Includes "North" and "South."² Norwegians, Danes and Swedes.³ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.

TABLE 9. — *Degree of Education of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			ILLITERATE.			READS AND WRITES.			COMMON SCHOOL.			HIGH SCHOOL.			COLLEGE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	—	1	—	7	7	1	—	1	—	19	27	—	2	—	—	—	—	—	—	—
2. Senile,	11	33	44	—	7	7	1	—	1	—	4	4	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	10	19	29	2	4	6	4	2	6	4	10	14	—	—	—	—	—	—	—	—	—
4. General paralysis,	6	7	13	1	2	3	2	—	2	4	6	10	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	1	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	1	3	4	1	—	1	—	—	1	—	2	2	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	1	5	6	—	—	—	—	—	1	1	2	3	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	1	10	11	—	2	2	—	3	3	1	1	2	—	—	—	—	—	—	—	—	—
14. Involution melancholia,	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox,	10	11	21	—	1	1	—	3	3	5	7	12	—	—	—	—	—	—	—	—	—
16. Paranoia or paranoid conditions,	1	12	13	—	1	1	1	2	3	—	8	8	—	—	—	—	—	—	—	—	—
17. Epileptic,	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	1	3	4	—	2	2	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	2	1	3	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	48	109	157	5	19	24	9	14	23	25	58	83	8	14	22	—	1	1	1	3	4

TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	—	1	1	—	1	—	—	—	—	—	—
2. Senile,	11	33	44	11	33	44	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	10	19	29	10	19	29	—	—	—	—	—	—
4. General paralysis,	9	7	13	6	7	13	—	—	—	—	—	—
5. With cerebral syphilis,	1	—	1	1	—	1	—	—	—	—	—	—
6. With Huntington's chorea,	1	1	2	1	1	2	—	—	—	—	—	—
7. With brain tumor,	1	—	1	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases,	1	3	4	1	3	4	—	—	—	—	—	—
9. Alcoholic,	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	1	5	6	1	4	5	—	—	—	—	—	—
12. With other somatic diseases,	1	10	11	1	10	11	—	—	—	—	—	—
13. Manic-depressive,	1	1	2	1	1	2	—	—	—	—	—	—
14. Involution melancholia,	10	11	21	10	11	21	—	—	—	—	—	—
15. Dementia præcox,	1	12	13	1	12	13	—	—	—	—	—	—
16. Paranoia or paranoid conditions,	—	2	2	—	2	2	—	—	—	—	—	—
17. Epileptic,	—	1	1	—	1	1	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	—	3	3	—	3	3	—	—	—	—	—	—
20. With mental deficiency,	2	1	3	2	1	3	—	—	—	—	—	—
21. Undiagnosed,	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis,	—	—	—	—	—	—	—	—	—	—	—	—
Total,	48	109	157	48	108	156	—	1	1	—	—	—

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			DEPENDENT.			MARGINAL.			COMFORTABLE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
2. Senile,	11	33	44	6	9	15	5	15	20	—	9	9	—	—	—
3. With cerebral arteriosclerosis,	10	19	29	4	4	8	4	4	8	2	4	6	—	—	—
4. General paralysis,	6	7	13	3	1	4	3	—	3	—	—	—	—	—	—
5. With cerebral syphilis,	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	1	3	4	—	1	1	1	2	3	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	1	5	6	—	—	—	1	4	5	—	—	—	—	1	1
13. Manic-depressive,	1	10	11	—	—	—	1	7	8	—	2	2	—	1	1
14. Involution melancholia,	1	1	2	—	—	—	1	1	2	1	1	2	—	—	—
15. Dementia precox,	10	11	21	2	2	4	7	8	15	1	1	2	—	—	—
16. Paranoia or paranoid conditions,	1	12	13	—	2	2	1	2	3	—	2	2	—	—	—
17. Epileptic,	—	2	2	—	—	—	—	2	2	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	1	3	4	1	1	2	—	—	—	—	1	1	—	—	—
21. Undiagnosed,	2	3	5	—	1	1	1	1	2	—	—	—	—	—	—
22. Without psychosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	48	109	157	17	22	39	27	65	92	4	20	24	—	2	2

TABLE 12. — *Use of Alcohol by First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			ABSTINENT.			TEMPERATE.			INTERTEMPERATE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	—	1	—	—	—	—	—	—	1	—	1	—	—	1
2. Senile,	11	33	44	6	23	29	3	5	8	2	—	2	—	—	2
3. With cerebral arteriosclerosis,	10	19	29	4	12	16	5	6	11	1	—	1	—	—	1
4. General paralysis,	9	7	16	—	5	5	4	1	5	2	—	2	—	—	2
5. With cerebral syphilis,	1	—	1	—	—	—	—	—	—	1	—	1	—	—	1
6. With Huntington's chorea,	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
7. With brain tumor,	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
8. With other brain or nervous diseases,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	1	3	4	—	—	—	—	—	—	1	3	4	—	—	4
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	1	5	6	—	2	2	1	3	4	—	—	—	—	—	—
13. Manic-depressive,	1	10	11	1	6	7	1	3	4	—	—	—	—	—	—
14. Involution melancholia,	1	1	2	—	1	1	1	—	1	—	—	—	—	1	1
15. Dementia præcox,	10	11	21	6	5	11	3	2	5	1	2	3	—	2	2
16. Paranoia or paranoid conditions,	1	12	13	1	6	7	—	4	4	—	—	—	—	2	2
17. Epileptic,	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	1	3	4	1	1	2	—	1	1	—	—	—	—	1	1
21. Undiagnosed,	2	—	2	—	—	—	—	—	—	1	—	1	—	—	1
22. Without psychosis,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—
Total,	48	109	157	20	65	85	18	26	44	10	10	20	—	8	8

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			SINGLE.			MARRIED.			WIDOWED.			SEPARATED.			DIVORCED.			UNASCE- TAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	—	1	1	—	1	1	—	1	—	—	25	—	—	—	—	—	—	—	—	—
2. Senile,	11	33	44	1	9	10	4	5	9	6	19	11	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	10	19	29	1	4	5	5	6	11	2	2	2	—	—	—	1	—	1	—	—	—
4. General paralysis,	6	7	13	1	—	1	1	—	8	—	—	2	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis,	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	—	1	1	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	1	3	4	—	2	2	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	1	5	6	1	1	2	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	1	10	11	1	2	3	—	6	6	—	1	1	—	—	—	—	—	—	—	—	—
14. Involution melancholia,	1	1	2	1	1	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia precox,	10	11	21	9	3	12	1	7	8	—	—	—	—	—	—	1	1	2	—	—	—
16. Paranoia or paranoid conditions,	1	12	13	1	3	4	1	5	5	—	4	4	—	—	—	—	—	—	—	—	—
17. Epileptic,	—	2	2	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	—	3	3	—	2	2	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	2	1	3	1	—	—	2	—	2	—	1	1	—	—	—	—	—	—	—	—	—
22. Without psychosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	48	109	157	16	30	46	21	34	55	9	41	50	1	3	4	1	1	2	—	—	—

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1920.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	-	-	-	-	-	-
2. Senile, total,	-	-	-	-	1	1
(a) Simple deterioration,	-	-	-	-	-	-
(b) Presbyophrenic type,	-	-	-	-	-	-
(c) Delirious and confused states,	-	-	-	-	-	-
(d) Depressed and agitated states in addition to deterioration,	-	-	-	-	-	-
(e) Paranoid states in addition to deterioration,	-	1	1	-	-	-
(f) Pre-senile types,	-	-	-	-	-	-
3. With cerebral arteriosclerosis,	-	-	-	4	3	7
4. General paralysis,	-	-	-	1	-	1
5. With cerebral syphilis,	-	-	-	-	1	1
6. With Huntington's chorea,	-	-	-	-	-	-
7. With brain tumor,	-	-	-	-	-	-
8. With other brain or nervous diseases, total,	-	-	-	-	-	-
Cerebral embolism,	-	-	-	-	-	-
Paralysis agitans,	-	-	-	-	-	-
Meningitis, tuberculous or other forms,	-	-	-	-	-	-
Multiple sclerosis,	-	-	-	-	-	-
Tabes,	-	-	-	-	-	-
Acute chorea,	-	-	-	-	-	-
Other conditions,	-	-	-	-	-	-
9. Alcoholic, total,	-	-	-	-	-	-
(a) Pathological intoxication,	-	-	-	-	-	-
(b) Delirium tremens,	-	-	-	-	-	-
(c) Acute hallucinosis,	-	-	-	-	-	-
(d) Acute paranoid type,	-	-	-	-	-	-
(e) Korsakow's psychosis,	-	-	-	-	-	-
(f) Chronic hallucinosis,	-	-	-	-	-	-
(g) Chronic paranoid type,	-	-	-	-	-	-
(h) Alcoholic deterioration,	-	-	-	-	-	-
(i) Other types, acute or chronic,	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins, total,	-	-	-	-	-	-
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	-	-	-	-	-	-
(b) Metals, as lead, arsenic, etc.,	-	-	-	-	-	-
(c) Gases,	-	-	-	-	-	-
(d) Other exogenous toxins,	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-
12. With other somatic diseases, total,	-	-	-	-	-	-
(a) Delirium with infectious diseases,	-	-	-	-	-	-
(b) Post-infectious psychoses,	-	-	-	-	-	-
(c) Exhaustion delirium,	-	-	-	-	-	-
(d) Delirium of unknown origin,	-	-	-	-	-	-
(e) Diseases of the ductless glands,	-	-	-	-	-	-
(f) Cardio-renal disease,	-	-	-	-	-	-
(g) Other diseases or conditions,	-	-	-	-	-	-
13. Manic-depressive, total,	-	-	-	3	8	11
(a) Manic type,	1	2	3	-	-	-
(b) Depressive type,	2	6	8	-	-	-
(c) Stupor,	-	-	-	-	-	-
(d) Mixed type,	-	-	-	-	-	-
(e) Circular type,	-	-	-	-	-	-
14. Involution melancholia,	-	-	-	-	2	2

TABLE 14. — *Psychoses of Readmissions for the Year ending Sept. 30, 1920*
— Concluded.

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total,				5	6	11
(a) Paranoid type,	4	3	7			
(b) Katatonic type,	—	2	2			
(c) Hebephrenic type,	1	1	2			
(d) Simple type,	—	—	—			
16. Paranoia and paranoid conditions,				1	1	2
17. Epileptic, total,				—	—	—
(a) Deterioration,	—	—	—			
(b) Clouded states,	—	—	—			
(c) Other conditions,	—	—	—			
18. Psychoneuroses and neuroses, total,				—	1	1
(a) Hysterical type,	—	—	—			
(b) Psychasthenic type,	—	1	1			
(c) Neurasthenic type,	—	—	—			
(d) Anxiety neuroses,	—	—	—			
19. With psychopathic personality,				2	—	2
20. With mental deficiency,				4	1	5
21. Undiagnosed,				—	1	1
22. Without psychosis, total,				—	—	—
(a) Epilepsy without psychosis,	—	—	—			
(b) Alcoholism without psychosis,	—	—	—			
(c) Drug addiction without psychosis,	—	—	—			
(d) Psychopathic personality without psychosis,	—	—	—			
(e) Mental deficiency without psychosis,	—	—	—			
(f) Others,	—	—	—			
Total,				20	25	45

TABLE 15. — Discharges of Patients classified with Reference to Principal Psychoses and Condition on Discharge for the Year ending Sept. 30, 1920.

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			NOT INSANE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	2	1	3	-	-	-	2	1	3	-	-	-	-	-	-
2. Senile,	2	5	7	-	-	-	1	2	3	-	-	-	-	-	-
3. With cerebral arteriosclerosis,	2	4	6	-	-	-	2	1	3	-	-	-	-	-	-
4. General paralysis,	3	1	4	-	-	-	1	1	2	2	3	5	-	-	-
5. With cerebral syphilis,	2	1	3	-	-	-	1	-	1	1	1	2	-	-	-
6. With Huntington's chorea,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. With brain tumor,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8. With other brain or nervous diseases,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. Alcoholic,	13	9	22	7	4	11	6	5	11	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins,	1	1	2	1	-	1	-	-	-	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12. With other somatic diseases,	2	7	9	2	5	7	-	2	2	-	-	-	-	-	-
13. Manic-depressive,	15	40	55	11	29	40	4	11	15	-	-	-	-	-	-
14. Involution melancholia,	1	7	8	-	2	2	1	5	6	-	-	-	-	-	-
15. Dementia praecox,	15	27	42	-	-	-	8	22	30	7	5	12	-	-	-
16. Paranoia or paranoid conditions,	2	6	8	-	-	-	2	2	4	-	4	4	-	-	-
17. Epileptic,	1	1	2	-	-	-	1	-	1	-	-	-	-	-	-
18. Psychoneuroses and neuroses,	4	2	6	-	-	-	4	2	6	-	-	-	-	-	-
19. With psychopathic personality,	3	1	4	-	-	-	3	1	4	-	-	-	-	-	-
20. With mental deficiency,	2	2	4	-	-	-	2	-	2	-	-	-	-	-	-
21. Undiagnosed,	-	2	2	-	-	-	-	2	2	-	-	-	-	-	-
22. Without psychosis,	1	2	3	-	-	-	-	-	-	-	-	-	1	2	3
Total,	71	115	186	21	40	61	38	57	95	11	16	27	1	2	3

RESPIRATORY SYSTEM:	1	3	5	8	9	1	10	18	1	19	1	4	10	5	12	17
	13	4	1	2	2	2	2	1	1	1	1	1	1	1	1	2
	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DIGESTIVE SYSTEM:	36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GENITO-URINARY SYSTEM:	116	107	223	11	34	45	26	18	44	42	10	52	6	4	10	17
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DISEASES OF THE SKIN:	116	107	223	11	34	45	26	18	44	42	10	52	6	4	10	17
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DISEASES OF BONES AND LOCOMOTOR SYSTEM (tuberculosis and rheumatism excepted),	116	107	223	11	34	45	26	18	44	42	10	52	6	4	10	17
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total,	116	107	223	11	34	45	26	18	44	42	10	52	6	4	10	17

TABLE 16. — *Causes of Death of Patients classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920*
— Concluded.

CAUSES OF DEATH.	PSYCHOSES.											
	INVOLUTION MELANCHOLIA.			DEMENTIA PRÆCOX.			PARANOID OR PARANOID CONDITIONS.			WITH MENTAL DEFICIENCY.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
GENERAL DISEASES:												
Influenza,	1	1	2	1	1	2	1	1	2	1	1	2
Erysipelas,	1	1	2	1	1	2	1	1	2	1	1	2
Septicæmia,	2	2	4	5	3	8	1	1	2	1	1	2
Tuberculosis of lungs,	1	1	2	1	1	2	1	1	2	1	1	2
Other forms of tuberculosis,	1	1	2	1	1	2	1	1	2	1	1	2
Cancer of stomach,	1	1	2	1	1	2	1	1	2	1	1	2
Cancer of intestines,	1	1	2	1	1	2	1	1	2	1	1	2
Cancer of bladder,	1	1	2	1	1	2	1	1	2	1	1	2
Cancer of uterus,	1	1	2	1	1	2	1	1	2	1	1	2
Other general diseases,	1	1	2	1	1	2	1	1	2	1	1	2
NERVOUS SYSTEM:												
Cerebrospinal meningitis,	1	1	2	1	1	2	1	1	2	1	1	2
Apoplexy (cerebral hemorrhage),	1	1	2	1	1	2	1	1	2	1	1	2
General paralysis of insane,	1	1	2	1	1	2	1	1	2	1	1	2
Exhaustion from other mental diseases,	1	1	2	1	1	2	1	1	2	1	1	2
Brain tumor,	1	1	2	1	1	2	1	1	2	1	1	2
Other diseases of brain,	1	1	2	1	1	2	1	1	2	1	1	2
Other diseases of nervous system,	1	1	2	1	1	2	1	1	2	1	1	2
CIRCULATORY SYSTEM:												
Chronic myocarditis,	1	1	2	1	1	2	1	1	2	1	1	2
Acute endocarditis,	1	1	2	1	1	2	1	1	2	1	1	2
Chronic endocarditis,	1	1	2	1	1	2	1	1	2	1	1	2
Arteriosclerosis,	1	1	2	1	1	2	1	1	2	1	1	2
Other diseases of the arteries,	1	1	2	1	1	2	1	1	2	1	1	2
Other diseases of the circulatory system,	1	1	2	1	1	2	1	1	2	1	1	2

RESPIRATORY SYSTEM:									
Bronchitis,	-	2	-	1	-	2	-	1	1
Bronchopneumonia,	-	-	-	1	-	-	-	4	1
Lobar pneumonia,	-	-	-	1	-	-	-	-	1
Pleurisy,	-	-	-	-	-	-	-	-	2
Gangrene of lungs,	1	-	-	1	-	-	-	-	-
DIGESTIVE SYSTEM:									
Diarrhea and enteritis,	-	-	-	-	-	-	-	-	-
Intestinal obstruction,	-	-	-	-	-	-	-	-	-
Other diseases of intestines,	-	2	-	3	-	-	-	1	-
Other diseases of digestive system (cancer and tuberculosis excepted),	-	-	-	-	-	1	-	-	1
GENITO-URINARY SYSTEM:									
Acute nephritis,	-	-	-	-	-	-	-	-	-
Chronic nephritis,	-	-	-	1	-	-	-	-	-
Other diseases of kidneys and annexa,	-	-	-	-	-	-	-	2	-
Diseases of bladder,	-	-	-	-	-	-	-	-	-
DISEASES OF THE SKIN:									
Gangrene,	-	-	-	-	-	-	-	-	-
DISEASES OF BONES AND LOCOMOTOR SYSTEM (tuberculosis and rheumatism excepted),									
Total,	3	7	10	12	7	19	5	5	10
									20

¹ Includes group 22, "without psychosis."

TABLE 17. — *Age of Patients at Time of Death classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	1	1	2																					
2. Senile,	11	34	45																					
3. With cerebral arteriosclerosis,	26	18	44																					
4. General paralysis,	42	10	52																					
5. With cerebral syphilis,	4	1	5																					
6. With Huntington's chorea,	1	2	3																					
7. With brain tumor,	2	1	3																					
8. With other brain or nervous diseases,	1	1	2																					
9. Alcoholic,	6	4	10																					
10. Due to drugs and other exogenous toxins,	-	-	-																					
11. With pellagra,	-	-	-																					
12. With other somatic diseases,	1	5	6																					
13. Manic-depressive,	5	12	17																					
14. Involution melancholia,	3	7	10																					
15. Dementia precox,	12	7	19																					
16. Paranoia or paranoid conditions,	-	5	5																					
17. Epileptic,	-	-	-																					
18. Psychoneuroses and neuroses,	-	-	-																					
19. With psychopathic personality,	-	-	-																					
20. With mental deficiency,	1	-	1																					
21. Undiagnosed,	-	-	-																					
22. Without psychosis,	-	-	-																					
Total,	116	107	223	1	-	1	1	-	1	1	1	2	6	3	9	5	2	7	10	2	12	9	11	20

TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Principal Psychoses for the Year ending Sept. 30, 1920 — Concluded.*

PSYCHOSES.	YEARS.											
	5-6.			7-8.			9-10.			11-12.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	—	5	5	—	1	1	2	—	—	—	—	—
2. Senile,	1	—	1	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	1	1	2	—	—	—	—	—	—	—	—	—
4. General paralysis,	1	1	2	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis,	1	—	1	—	—	—	—	—	—	1	—	1
6. With Huntington's chorea,	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	—	1	1	—	—	—	2	—	—	—	—	—
9. Alcoholic,	1	1	2	2	—	2	1	1	2	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	2	—	2	1	1	2	—	—	—	—	—	—
14. Involution melancholia,	1	1	2	—	—	—	1	1	2	—	—	—
15. Dementia præcox,	1	2	3	2	2	4	2	2	4	—	—	—
16. Paranoia or paranoid conditions,	—	—	—	1	1	2	—	—	—	—	—	—
17. Epileptic,	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis,	—	—	—	—	—	—	—	—	—	—	—	—
Total,	8	9	17	5	5	10	3	4	7	2	1	3

TABLE 19. — *Family Care Department, Year ending Sept. 30, 1920.*

	Males.	Females.	Totals.
Remaining in family care Sept. 30, 1919,	—	8	8
Admitted within the year,	—	7	7
Nominally admitted from visit during year,	—	—	—
Whole number of cases within the year,	—	15	15
Dismissed within the year,	—	7	7
Returned to institution,	—	7	7
Discharged,	—	—	—
On visit,	—	—	—
Remaining in family care Sept. 30, 1920,	—	8	8
Supported by State,	—	2	2
Private,	—	3	3
Self-supporting,	—	3	3
Number of different persons within the year,	—	11	11
Number of different persons admitted,	—	6	6
Number of different persons dismissed,	—	5	5
Average daily number,	—	9.28	9.28
State,	—	5.84	5.84
Private,	—	2.87	2.87
Self-supporting,	—	.57	.57
Reimbursing,	—	—	—

NOTE. — There is no family care at the psychopathic department.

PSYCHOPATHIC DEPARTMENT.

TABLE 1. — *General Information.*

1. Date of opening as an institution for the insane: June 24, 1912.

2. Type of institution: State.

3. Hospital plant: —

Value of hospital property: —

Real estate including buildings, \$582,675 00

Personal property, 25,699 38

Total, \$608,374 38

Total acreage of hospital property owned, 2.04.

	ACTUALLY IN SERVICE AT END OF YEAR.			VACANCIES AT END OF YEAR.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
4. Officers and employees: —						
Chief medical officer,	—	—	—	1	—	1
Chief executive officer,	1	—	1	—	—	—
Executive officer,	1	—	1	—	—	—
Assistant executive officer,	1	—	1	—	—	—
Medical officers and assistant med- ical officers,	6	—	6	—	2	2
Graduate internes,	1	—	1	1	—	1
Roentgenologist,	1	—	1	—	—	—
Total physicians,	11	—	11	2	2	4
Stewards,	—	—	—	—	—	—
Resident dentists,	—	—	—	—	—	—
Graduate nurses,	—	8	8	—	—	—
Other nurses and attendants,	19	22	41	—	—	—
Teachers of occupational therapy,	—	1	1	—	—	—
Social workers,	—	3	3	—	—	—
All other officers and employees,	17	34	51	—	2	2
Total officers and employees,	47	68	115	2	4	6

TABLE 1. — *General Information* — Concluded.

	ACTUALLY IN IN- STITUTION.			ABSENT FROM INSTITUTION BUT STILL ON BOOKS.		
	Males.	Fe- males.	Totals.	Males.	Fe- males.	Totals.
5. Census of patient population at end of year:—						
White:—						
Insane,	30	35	65	48	53	101
Epileptics,	1	—	1	—	—	—
Mental defectives,	2	—	2	—	—	—
Alcoholics,	—	—	—	—	—	—
Drug addicts,	1	—	1	—	—	—
Neurosyphilitics (without psy- chosis),	—	—	—	10	—	10
All other cases,	3	7	10	—	1	1
Total,	37	42	79	58	54	112
Colored:—						
Insane,	4	—	4	—	3	3
Epileptics,	—	—	—	—	—	—
Mental defectives,	—	—	—	—	—	—
Alcoholics,	—	—	—	—	—	—
Drug addicts,	—	—	—	—	—	—
Neurosyphilitics (without psy- chosis),	—	—	—	—	—	—
All other cases,	—	—	—	—	—	—
Total,	4	—	4	—	3	3
Grand total,	41	42	83	58	57	115
6. Patients employed in industrial classes or in gen- eral hospital work on date of report,				Males.	Females.	Totals.
				8	2	10
7. Average daily number of all patients actually in institution during year,				41.42	43.84	85.26
8. Voluntary patients admitted during year,				129	71	200
9. Persons given advice or treatment in out-patient clinics during year,				643	807	1,450
Average daily number of patients on visit,				43.44	43.25	86.69

TABLE 2. — *Financial Statement*.

See treasurer's report for data requested under this table.

TABLE 3. — *Movement of Population for the Year beginning Oct. 1, 1919, and ending Sept. 30, 1920.*

	Males.	Females.	Totals.
Patients on books at beginning of institution year, . . .	74	78	152
Admissions during the year: —			
First admissions,	741	669	1,410
Readmissions,	195	148	343
Received from hospital department,	2	—	2
Transfers from other institutions,	—	1	1
Total received during the year,	938	818	1,756
Total under treatment during the year,	1,012	896	1,908
Discharged from books during the year: —			
As recovered,	27	14	41
As improved,	113	79	192
As unimproved,	369	297	666
As without psychosis,	191	206	397
Transferred to hospital department,	181	170	351
Transferred to other institutions,	3	6	9
Died during the year,	29	25	54
Total discharged and died,	913	797	1,710
Patients remaining on books at end of institution year, .	99	99	198

TABLE 4. — *Nativity of First Admissions and of Parents of First Admissions for the Year ending Sept. 30, 1920.*

NATIVITY.	PATIENTS.			PARENTS OF MALE PATIENTS.			PARENTS OF FEMALE PATIENTS.		
	Males.	Females.	Totals.	Fathers.	Mothers.	Both Parents.	Fathers.	Mothers.	Both Parents.
United States,	173	144	317	79	76	67	77	72	61
Asia, ¹	1	—	1	—	—	—	—	—	—
Austria,	2	—	2	5	3	3	2	—	—
Canada, ²	16	26	42	22	25	18	31	31	23
China,	—	1	1	—	—	—	1	1	1
Cuba,	—	—	—	—	—	—	—	1	—
Denmark,	—	—	—	1	1	1	—	—	—
England,	9	7	16	17	12	10	12	6	6
Finland,	—	1	1	—	—	—	1	—	—
France,	—	1	1	—	—	—	3	1	1
Germany,	1	1	2	4	3	2	4	5	4
Greece,	2	—	2	2	2	2	—	—	—
Hungary,	1	—	1	1	1	1	—	—	—
Ireland,	13	44	57	59	61	54	75	87	73
Italy,	14	11	25	18	18	18	13	13	13
Japan,	2	—	2	2	2	2	—	—	—
Jugo-Slavia,	—	2	2	1	1	1	2	2	2
Norway,	1	—	1	1	1	1	—	—	—
Poland,	7	3	10	8	8	8	2	2	2
Portugal,	3	—	3	5	3	3	3	1	1
Roumania,	1	—	1	1	1	1	—	—	—
Russia,	18	12	30	25	26	25	17	18	17
Scotland,	2	—	2	3	4	2	4	4	2
South America,	—	—	—	—	1	—	—	—	—
Sweden,	4	2	6	4	4	4	2	2	2
Turkey in Asia,	1	1	2	1	1	1	1	1	1
Turkey in Europe,	1	2	3	1	1	1	2	2	2
Wales,	—	1	1	—	—	—	1	1	1
West Indies, ³	—	2	2	—	—	—	2	1	1
Unascertained,	2	2	4	14	19	13	8	12	5
Total,	274	263	537	274	274	238	263	263	218

¹ Not otherwise specified.² Includes Newfoundland.³ Except Cuba and Porto Rico.TABLE 5. — *Citizenship of First Admissions for the Year ending Sept. 30, 1920.*

	Males.	Females.	Totals.
Citizens by birth,	173	142	315
Citizens by naturalization,	16	13	29
Aliens,	84	106	190
Citizenship unascertained,	1	2	3
Total,	274	263	537

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1920.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	-	-	-	-	-	-
2. Senile, total,	7	11	18	9	15	24
(a) Simple deterioration,	-	-	-	-	-	-
(b) Presbyophrenic type,	-	-	-	-	-	-
(c) Delirious and confused states,	-	-	-	-	-	-
(d) Depressed and agitated states in addition to deterioration,	2	2	2	-	-	-
(e) Paranoid states in addition to deterioration,	2	2	4	-	-	-
(f) Presenile types,	-	-	-	-	-	-
3. With cerebral arteriosclerosis,	-	-	-	15	10	25
4. General paralysis,	-	-	-	40	14	54
5. With cerebral syphilis,	-	-	-	2	2	4
6. With Huntington's chorea,	-	-	-	-	1	1
7. With brain tumor,	-	-	-	4	-	4
8. With other brain or nervous diseases, total,	-	-	-	9	3	12
Cerebral embolism,	-	-	-	-	-	-
Paralysis agitans,	2	-	2	-	-	-
Meningitis, tuberculous or other forms,	-	-	-	-	-	-
Multiple sclerosis,	-	-	-	-	-	-
Tabes,	1	-	1	-	-	-
Acute chorea,	1	-	1	-	-	-
Other conditions,	5	3	8	-	-	-
Encephalitis,	2	-	2	-	-	-
Organic brain disease,	3	3	6	-	-	-
9. Alcoholic, total,	-	-	-	6	5	11
(a) Pathological intoxication,	-	-	-	-	-	-
(b) Delirium tremens,	-	-	-	-	-	-
(c) Acute hallucinosis,	2	3	5	-	-	-
(d) Acute paranoid type,	1	-	1	-	-	-
(e) Korsakow's psychosis,	-	-	-	-	-	-
(f) Chronic hallucinosis,	3	1	4	-	-	-
(g) Chronic paranoid type,	-	1	1	-	-	-
(h) Alcoholic deterioration,	-	-	-	-	-	-
(i) Other types, acute or chronic,	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins, total,	-	-	-	1	-	1
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	1	-	1	-	-	-
(b) Metals, as lead, arsenic, etc.,	-	-	-	-	-	-
(c) Gases,	-	-	-	-	-	-
(d) Other exogenous toxins,	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-
12. With other somatic diseases, total,	4	4	8	5	13	18
(a) Delirium with infectious diseases,	-	-	-	-	-	-
(b) Post-infectious psychoses,	-	1	1	-	-	-
(c) Exhaustion delirium,	-	2	2	-	-	-
(d) Delirium of unknown origin,	-	1	1	-	-	-
(e) Diseases of the ductless glands,	1	4	5	-	-	-
(f) Cardio-renal disease,	-	1	1	-	-	-
(g) Other diseases or conditions,	-	1	1	-	-	-
Symptomatic,	-	1	1	-	-	-
13. Manic-depressive, total,	4	17	21	15	32	47
(a) Manic type,	10	11	21	-	-	-
(b) Depressive type,	-	-	-	-	-	-
(c) Stupor,	1	4	5	-	-	-
(d) Mixed type,	-	-	-	-	-	-
(e) Circular type,	-	-	-	-	-	-

TABLE 6. — *Psychoses of First Admissions for the Year ending Sept. 30, 1920 — Concluded.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
14. Involution melancholia, . . . . .	.	.	.	2	7	9
15. Dementia præcox, total, . . . . .	.	.	.	68	74	142
(a) Paranoid type,	31	35	66			
(b) Katatonic type,	13	12	25			
(c) Hebephrenic type,	18	25	43			
(d) Simple type,	6	2	8			
16. Paranoia and paranoid conditions, . . . . .	.	.	.	5	13	18
17. Epileptic, total, . . . . .	.	.	.	5	4	9
(a) Deterioration,	1	3	4			
(b) Clouded states,	4	1	5			
(c) Other conditions,	—	—	—			
18. Psychoneuroses and neuroses, total, . . . . .	.	.	.	7	5	12
(a) Hysterical type,	—	3	3			
(b) Psychasthenic type,	4	1	5			
(c) Neurasthenic type,	3	—	3			
(d) Anxiety neuroses,	—	1	1			
19. With psychopathic personality,	—	—	—			
20. With mental deficiency, . . . . .	.	.	.	1	2	3
21. Undiagnosed, . . . . .	.	.	.	25	19	44
22. Without psychosis, total, . . . . .	.	.	.	55	44	99
(a) Epilepsy without psychosis,	7	2	9			
(b) Alcoholism without psychosis,	—	—	—			
(c) Drug addiction without psychosis,	1	—	1			
(d) Psychopathic personality without psychosis,	12	13	25			
(e) Mental deficiency without psychosis,	12	11	23			
(f) Others,	23	18	41			
Conduct disorder,	4	1	5			
Neurosyphilis,	5	—	5			
Domestic difficulties,	2	2	4			
Brain tumor,	1	1	2			
Organic brain disease,	1	2	3			
Encephalitis,	1	—	1			
Suicidal attempt,	1	—	1			
Suicidal threats,	1	—	1			
Depression,	2	6	8			
Cardio-vascular-renal disease,	1	—	1			
Subnormal,	1	—	1			
Question of tumor of spinal cord,	1	—	1			
Hysteria,	1	—	1			
Theft,	1	—	1			
Moron,	—	1	1			
Chorea,	—	1	1			
Recovered delirium,	—	1	1			
Asthénia,	—	1	1			
Neurasthenia,	—	1	1			
Psychasthenia,	—	1	1			
Total, . . . . .	.	.	.	274	263	537

TABLE 7. — Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.

RACE.	TOTAL.			PSYCHOSES.						WITH CEREBRAL HUNTINGTON'S CHOREA.			WITH BRAIN TUMOR.		
	Males.	Females.	Totals.	SENILE.			WITH CEREBRAL ARTERIO- SCLEROSIS.			GENERAL PARALYSIS.			Males.	Females.	Totals.
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.			
African (black),	11	12	23	-	1	1	-	-	-	5	2	7	-	-	-
Arabian, . . .	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Armenian, . . .	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-
Chinese, . . .	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
English, . . .	79	68	147	4	6	10	5	4	9	12	3	15	1	1	2
Finnish, . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
French, . . .	5	7	12	-	-	-	1	-	1	2	3	5	-	-	-
German, . . .	2	6	8	-	-	-	-	-	-	-	-	-	-	-	-
Greek, . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Hebrew, . . .	33	15	48	2	-	2	7	-	-	5	-	5	1	-	1
Irish, . . .	75	97	172	2	4	6	4	4	11	8	4	12	-	-	-
Italian, ¹ . . .	18	13	31	-	-	-	2	1	3	3	1	4	-	-	-
Japanese, . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian, . . .	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-
Magyar, . . .	3	-	3	-	-	-	-	-	-	1	-	1	-	-	-
Portuguese, . . .	5	2	7	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian, ² . . .	6	2	8	-	1	1	-	-	-	-	-	-	-	-	-
Scotch, ³ . . .	3	4	7	1	1	2	-	1	1	1	-	1	-	-	-
Slovak, ⁴ . . .	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-
Syrian, . . .	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
West Indian, ⁴ . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mixed, . . .	18	24	42	2	2	4	-	-	-	3	-	3	1	-	1
Race unascertained, . . .	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Total, . . .	274	263	537	9	15	24	15	10	25	40	14	54	4	-	4

¹ Includes "North" and "South."
² Norwegians, Danes and Swedes.
³ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.
⁴ Except Cuban.

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920* — Continued.

RACE.	PSYCHOSES.											
	WITH OTHER BRAIN OR NERVOUS DISEASES.			ALCOHOLIC.			DUE TO DRUGS AND OTHER EXOGENOUS TOXINS.			MANIC-DEPRESSIVE.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black),	1	-	1	-	-	-	-	-	1	-	-	-
Arabian,	-	-	-	1	-	1	-	-	-	-	-	-
Armenian,	-	1	1	-	-	-	-	-	-	-	-	-
Chinese,	-	-	-	-	-	-	-	-	-	-	-	-
English,	4	-	4	1	-	1	2	7	9	1	1	2
Finnish,	-	-	-	-	-	-	-	-	-	-	-	-
French,	-	-	-	-	-	-	-	-	1	-	-	-
German,	-	-	-	-	-	-	-	-	-	-	-	-
Greek,	1	-	1	-	-	-	-	-	-	-	-	-
Hebrew,	3	2	5	3	4	7	2	3	5	1	2	3
Irish,	-	-	-	1	-	1	-	-	-	-	-	-
Italian, ¹	-	-	-	-	-	-	-	-	-	-	-	-
Japanese,	-	-	-	-	-	-	-	-	-	-	-	-
Lithuanian,	-	-	-	1	1	1	-	-	-	-	-	-
Magyar,	-	-	-	-	-	-	-	-	-	-	-	-
Portuguese,	-	-	-	-	-	-	-	-	-	-	-	-
Scandinavian, ²	-	-	-	-	-	-	-	-	-	-	-	-
Scotch,	-	-	-	-	-	-	-	-	-	-	-	-
Slavonic, ³	-	-	-	-	-	-	-	-	-	-	-	-
Syrian,	-	-	-	-	-	-	-	-	-	-	-	-
West Indian, ⁴	-	-	-	-	-	-	1	1	1	2	1	3
Mixed,	-	-	-	-	-	-	-	-	-	-	-	-
Race unascertained,	-	-	-	-	-	-	-	-	-	-	-	-
Total,	9	3	12	6	5	11	1	-	18	15	32	47
										2	7	9
										68	74	142

¹ Includes "North" and "South."² Norwegians, Danes and Swedes.³ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.⁴ Except Cuban.

TABLE 7. — *Race of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920 — Concluded.*

RACE.	PSYCHOSES.											
	PARANOIA AND PARANOID CONDITIONS.			EPILEPTIC.			PSYCHONEUROSES AND NEUROSES.			WITH MENTAL DEFICIENCY.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
African (black),	.	.	.	1	.	1	.	.	.	1	1	2
Arabian,	.	.	.	1	.	1	.	.	.	.	.	.
Armenian,	.	.	.	.	.	.	.	.	.	.	.	.
Chinese,	.	.	.	.	.	.	.	.	.	.	.	.
English,	.	6	6	1	.	1	2	2	4	8	5	13
Finnish,	.	.	.	.	.	.	.	.	.	.	.	.
French,	.	.	.	.	.	.	.	.	.	.	.	.
German,	.	1	1	.	.	.	.	1	1	.	1	1
Greek,	1	.	1	2	.	2	2	.	2	2	3	5
Hebrew,	3	3	6	1	2	3	2	1	3	7	7	14
Irish,	.	.	.	1	.	1	1	.	1	1	.	1
Italian, ¹	1	.	1	2	1	3	1	1	2	1	.	2
Japanese,	.	.	.	.	.	.	.	.	.	.	.	.
Lithuanian,	.	.	.	.	.	.	.	.	.	.	.	.
Magyar,	.	.	.	.	.	.	.	.	.	.	.	.
Portuguese,	.	.	.	.	.	.	.	.	.	.	.	.
Scandinavian, ²	.	1	1	.	.	.	1	.	1	.	.	1
Scotch,	.	1	1	.	.	.	.	.	.	2	.	2
Slavonic, ³	.	.	.	.	.	.	.	.	.	3	.	3
Syrian,	.	.	.	1	.	1	.	.	.	.	.	.
West Indian, ⁴	.	.	.	.	.	.	.	.	.	.	1	1
Mixed,	.	2	2	.	.	.	.	.	.	1	1	2
Race unascertained,	.	.	.	.	.	.	.	.	.	.	.	.
Total,	5	13	18	5	4	9	7	5	12	1	2	3
										25	19	44
										55	44	99

¹ Includes "North" and "South."² Norwegians, Danes and Swedes.³ Includes Bohemian, Bosnian, Croatian, Dalmatian, Herzegovinian, Montenegrin, Moravian, Polish, Russian, Ruthenian, Servian, Slovak, Slovenian.⁴ Except Cuban.

TABLE 9. — Degree of Education of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.

PSYCHOSES.	TOTAL.			ILLITERATE.			READS AND WRITES.			COMMON SCHOOL.			HIGH SCHOOL.			COLLEGE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	15	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile,	15	10	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	40	14	54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4. General paralysis,	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	4	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	9	3	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	6	5	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	5	13	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	15	32	47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
14. Involution melancholia,	2	7	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox,	68	74	142	1	1	2	1	1	2	1	1	2	53	64	117	10	7	17	2	1	3
16. Paranoia or paranoid conditions,	5	13	18	—	—	—	—	—	—	—	—	—	4	13	17	—	—	—	—	—	—
17. Epileptic,	5	4	9	—	—	—	—	—	—	—	—	—	5	3	8	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	7	5	12	—	—	—	—	—	—	—	—	—	5	5	10	2	—	—	—	—	—
19. With psychopathic personality,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	1	2	3	—	—	—	—	—	—	—	—	—	—	2	2	—	—	—	—	—	—
21. Undiagnosed,	25	19	44	—	—	—	—	—	—	—	—	—	22	14	36	2	2	4	—	—	—
22. Without psychosis,	55	44	99	1	1	2	1	1	1	—	—	—	44	37	81	8	6	14	1	1	2
Total,	274	263	537	4	6	10	5	2	7	226	227	453	26	20	46	10	5	15	3	3	6

TABLE 10. — *Environment of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			URBAN.			RURAL.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	15	24	—	—	—	—	—	—	—	—	—
2. Senile,	15	10	25	15	9	24	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	40	14	54	40	10	50	—	—	—	—	—	—
4. General paralysis,	2	2	4	2	14	16	—	—	—	—	—	—
5. With cerebral syphilis,	—	1	1	—	2	2	—	—	—	—	—	—
6. With Huntington's chorea,	4	—	4	—	1	1	—	—	—	—	—	—
7. With brain tumor,	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	6	3	9	9	4	13	—	—	—	—	—	—
9. Alcoholic,	6	5	11	6	3	9	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	1	—	1	1	—	1	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	5	13	18	5	13	18	—	—	—	—	—	—
13. Manic-depressive,	15	32	47	15	32	47	—	—	—	—	—	—
14. Involution melancholia,	2	7	9	2	7	9	1	—	1	—	—	—
15. Dementia præcox,	68	74	142	65	73	138	3	1	4	—	—	—
16. Paranoia or paranoid conditions,	5	13	18	5	13	18	—	—	—	—	—	—
17. Epileptic,	5	4	9	5	4	9	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	7	5	12	7	5	12	—	—	—	—	—	—
19. With psychopathic personality,	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	1	2	3	1	2	3	—	—	—	—	—	—
21. Undiagnosed,	25	19	44	25	17	42	—	2	2	—	—	—
22. Without psychosis,	55	44	99	54	43	97	1	1	2	—	—	—
Total,	274	263	537	269	259	528	5	4	9	—	—	—

TABLE 11. — *Economic Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			DEPENDENT.			MARGINAL.			COMFORTABLE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	15	24	3	—	3	6	14	20	—	—	—	—	—	—
2. Senile,	15	10	25	—	2	2	12	7	19	2	—	2	1	1	2
3. With cerebral arteriosclerosis,	40	14	54	—	—	—	38	11	49	2	3	5	1	—	—
4. General paralysis,	2	2	4	—	—	—	2	2	4	—	—	—	—	—	—
5. With cerebral syphilis,	—	1	1	—	—	—	—	1	1	—	—	—	—	—	—
6. With Huntington's chorea,	4	—	4	—	—	—	4	—	4	—	—	—	—	—	—
7. With brain tumor,	9	3	12	1	—	1	7	3	10	1	—	1	—	—	—
8. With other brain or nervous diseases,	6	5	11	—	—	—	5	4	9	—	—	—	1	—	1
9. Alcoholic,	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	5	13	18	—	1	1	5	11	16	—	1	1	—	—	—
12. With other somatic diseases,	15	32	47	—	—	—	11	31	42	3	—	3	1	1	2
13. Manic-depressive,	2	7	9	—	—	—	2	6	8	—	1	1	—	—	—
14. Involution melancholia,	68	74	142	3	2	5	58	68	126	3	2	5	4	2	6
15. Dementia præcox,	5	13	18	—	1	1	4	10	14	1	1	2	—	1	1
16. Paranoia or paranoid conditions,	5	4	9	1	—	1	4	3	7	—	—	—	—	—	—
17. Epileptic,	7	5	12	—	—	—	6	5	11	1	—	1	—	—	—
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	1	2	3	—	—	—	1	2	3	—	—	—	—	—	—
20. With mental deficiency,	25	19	44	1	1	2	24	16	40	—	2	2	—	—	—
21. Undiagnosed,	55	44	99	4	2	6	45	36	81	6	5	11	—	1	1
22. Without psychosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	274	263	537	13	9	22	235	230	465	19	15	34	7	9	16

TABLE 12. — *Use of Alcohol by First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			ABSTINENT.			TEMPERATE.			INTERMEDIATE.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	9	15	24	6	12	18	3	2	5	—	—	—	—	—	—
2. Senile,	15	10	25	7	10	17	4	—	4	2	—	—	2	—	2
3. With cerebral arteriosclerosis,	40	14	54	10	10	20	26	3	29	2	—	—	2	1	3
4. General paralysis,	2	2	4	1	1	2	1	—	2	—	—	—	—	—	—
5. With cerebral syphilis,	—	1	1	—	1	1	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	4	—	4	1	—	1	3	—	3	—	—	—	—	—	—
7. With brain tumor,	9	3	12	5	3	8	2	—	2	2	—	—	—	—	—
8. With other brain or nervous diseases,	6	5	11	1	—	1	—	—	—	6	5	11	—	—	—
9. Alcoholic,	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	5	13	18	2	13	15	2	—	2	—	—	—	1	—	1
12. With other somatic diseases,	15	32	47	9	27	36	5	3	8	1	—	—	—	2	2
13. Manic-depressive,	2	7	9	2	6	8	—	—	—	—	—	—	—	1	1
14. Involution melancholia,	68	74	142	45	69	114	22	2	24	1	1	2	—	2	2
15. Dementia praecox,	5	13	18	2	12	14	3	1	4	—	—	—	—	—	—
16. Paranoia or paranoid conditions,	5	5	10	1	3	4	4	1	5	—	—	—	—	—	—
17. Epileptic,	7	5	12	—	5	5	6	—	6	—	—	—	1	—	1
18. Psychoneuroses and neuroses,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	2	3	5	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	25	19	44	12	16	28	1	1	2	3	—	—	2	3	5
21. Undiagnosed,	55	44	99	32	40	72	20	1	21	3	2	5	—	1	1
22. Without psychosis,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	274	263	537	136	229	365	110	15	125	20	9	29	8	10	18

TABLE 13. — *Marital Condition of First Admissions classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			SINGLE.			MARRIED.			WIDOWED.			SEPARATED.			DIVORCED.			UNASCERTAINED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	—	15	24	3	5	8	—	2	4	—	4	12	—	—	—	—	—	—	—	—	—
2. Senile,	9	10	25	4	3	7	2	2	9	4	8	4	—	—	—	—	—	—	—	—	—
3. With cerebral arteriosclerosis,	15	10	25	4	3	7	7	2	9	4	4	4	—	—	—	—	—	—	—	—	—
4. General paralysis,	40	14	54	8	3	11	30	10	40	2	—	2	—	—	—	—	—	—	—	—	—
5. With cerebral syphilis,	2	2	4	1	1	2	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
6. With Huntington's chorea,	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	4	—	4	2	—	2	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—
8. With other brain or nervous diseases,	9	3	12	2	—	2	6	2	8	—	—	—	—	—	—	—	—	—	—	—	—
9. Alcoholic,	6	5	11	3	—	3	2	2	4	1	3	4	—	—	—	—	—	—	—	—	—
10. Due to drugs and other exogenous toxins,	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	5	13	18	2	3	5	3	9	12	—	—	—	—	—	—	—	—	—	—	—	—
13. Manic-depressive,	15	32	47	4	11	15	11	18	29	—	—	—	—	—	—	—	—	—	—	—	—
14. Involution melancholia,	2	7	9	1	2	3	1	3	4	—	—	—	—	—	—	—	—	—	—	—	—
15. Dementia praecox,	68	74	142	53	43	96	15	27	42	—	—	—	—	—	—	—	—	—	—	—	—
16. Paranoia or paranoid conditions,	5	13	18	2	2	4	3	7	10	—	—	—	—	—	—	—	—	—	—	—	—
17. Epileptic,	5	4	9	2	1	3	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—
18. Psychoneuroses and neuroses,	7	5	12	4	2	6	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—
19. With psychopathic personality,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. With mental deficiency,	1	2	3	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—
21. Undiagnosed,	25	19	44	11	7	18	14	11	25	—	—	—	—	—	—	—	—	—	—	—	—
22. Without psychosis,	55	44	99	28	15	43	24	27	51	3	2	5	—	—	—	—	—	—	—	—	—
Total,	274	263	537	131	98	229	128	125	253	15	35	50	—	—	—	—	3	3	—	2	2

TABLE 14. — *Psychoses of Readmissions as Insane for the Year ending Sept. 30, 1920.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	-	-	-	-	-	-
2. Senile, total,	-	-	-	-	2	2
(a) Simple deterioration,	-	2	2	-	-	-
(b) Presbyophrenic type,	-	-	-	-	-	-
(c) Delirious and confused states,	-	-	-	-	-	-
(d) Depressed and agitated states in addition to deterioration,	-	-	-	-	-	-
(e) Paranoid states in addition to deterioration,	-	-	-	-	-	-
(f) Presenile types,	-	-	-	-	-	-
3. With cerebral arteriosclerosis,	-	-	-	1	2	3
4. General paralysis,	-	-	-	11	-	11
5. With cerebral syphilis,	-	-	-	2	-	2
6. With Huntington's chorea,	-	-	-	1	-	1
7. With brain tumor,	-	-	-	-	-	-
8. With other brain or nervous diseases, total,	-	-	-	2	-	2
Cerebral embolism,	1	-	1	-	-	-
Paralysis agitans,	-	-	-	-	-	-
Meningitis, tuberculous or other forms,	-	-	-	-	-	-
Multiple sclerosis,	-	-	-	-	-	-
Tabes,	-	-	-	-	-	-
Acute chorea,	-	-	-	-	-	-
Other conditions,	1	-	1	-	-	-
Organic brain disease,	1	-	1	-	-	-
9. Alcoholic, total,	-	-	-	3	1	4
(a) Pathological intoxication,	-	-	-	-	-	-
(b) Delirium tremens,	-	-	-	-	-	-
(c) Acute hallucinosis,	-	-	-	-	-	-
(d) Acute paranoid type,	-	-	-	-	-	-
(e) Korsakow's psychosis,	-	-	-	-	-	-
(f) Chronic hallucinosis,	3	1	4	-	-	-
(g) Chronic paranoid type,	-	-	-	-	-	-
(h) Alcoholic deterioration,	-	-	-	-	-	-
(i) Other types, acute or chronic,	-	-	-	-	-	-
10. Due to drugs and other exogenous toxins, total,	-	-	-	-	-	-
(a) Opium (and derivatives), cocaine, bromides, chloral, etc., alone or combined,	-	-	-	-	-	-
(b) Metals, as lead, arsenic, etc.,	-	-	-	-	-	-
(c) Gases,	-	-	-	-	-	-
(d) Other exogenous toxins,	-	-	-	-	-	-
11. With pellagra,	-	-	-	-	-	-
12. With other somatic diseases, total,	-	-	-	-	1	1
(a) Delirium with infectious diseases,	-	1	1	-	-	-
(b) Post-infectious psychoses,	-	-	-	-	-	-
(c) Exhaustion delirium,	-	-	-	-	-	-
(d) Delirium of unknown origin,	-	-	-	-	-	-
(e) Diseases of the ductless glands,	-	-	-	-	-	-
(f) Cardio-renal disease,	-	-	-	-	-	-
(g) Other diseases or conditions,	-	-	-	-	-	-
13. Manic-depressive, total,	-	-	-	13	15	28
(a) Manic type,	7	8	15	-	-	-
(b) Depressive type,	6	7	13	-	-	-
(c) Stupor,	-	-	-	-	-	-
(d) Mixed type,	-	-	-	-	-	-
(e) Circular type,	-	-	-	-	-	-
14. Involution melancholia,	-	-	-	2	2	4

TABLE 14. — *Psychoses of Readmissions as Insane for the Year ending Sept. 30, 1920 — Concluded.*

PSYCHOSES.	Males.	Females.	Totals.	Males.	Females.	Totals.
15. Dementia præcox, total,				29	22	51
(a) Paranoid type,	16	15	31			
(b) Katatonic type,	3	3	6			
(c) Hebephrenic type,	10	3	13			
(d) Simple type,	—	1	1			
16. Paranoia and paranoid conditions,				4	2	6
17. Epileptic, total,				1	—	1
(a) Deterioration,	—	—	—			
(b) Clouded states,	1	—	1			
(c) Other conditions,	—	—	—			
18. Psychoneuroses and neuroses, total,				—	6	6
(a) Hysterical type,	—	3	3			
(b) Psychasthenic type,	—	2	2			
(c) Neurasthenic type,	—	1	1			
(d) Anxiety neuroses,	—	—	—			
19. With psychopathic personality,				1	1	2
20. With mental deficiency,				1	2	3
21. Undiagnosed,				7	5	12
22. Without psychosis,				20	8	28
(a) Epilepsy without psychosis,	1	—	1			
(b) Alcoholism without psychosis,	—	—	—			
(c) Drug addiction without psychosis,	—	—	—			
(d) Psychopathic personality without psychosis,	1	2	3			
(e) Mental deficiency without psychosis,	1	1	2			
(f) Others,	17	5	22			
Neurosyphilis,	15	2	17			
Psychasthenia,	1	—	1			
Depression,	—	1	1			
Psychoneurosis,	—	2	2			
Arteriosclerosis,	1	—	1			
Total,				98	69	167

TABLE 15. — Discharges of Patients classified with Reference to Principal Psychoses and Condition on Discharge for the Year ending Sept. 30, 1920.

PSYCHOSES.	TOTAL.			RECOVERED.			IMPROVED.			UNIMPROVED.			WITHOUT PSYCHOSIS.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
1. Traumatic,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Senile,	3	3	6	—	—	—	1	2	3	2	1	3	—	—	—
3. With cerebral arteriosclerosis,	5	2	7	—	—	—	2	—	2	3	2	5	—	—	—
4. General paralysis,	10	4	14	—	—	—	3	—	3	7	4	11	—	—	—
5. With cerebral syphilis,	2	—	2	—	—	—	1	—	1	1	—	—	—	—	—
6. With Huntington's chorea,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7. With brain tumor,	2	—	2	—	—	—	1	—	1	1	—	—	—	—	—
8. With other brain or nervous diseases,	3	—	3	—	—	—	1	—	1	1	—	—	—	—	—
9. Alcoholic,	4	2	6	—	—	—	3	2	5	—	—	—	1	—	1
10. Due to drugs and other exogenous toxins,	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
11. With pellagra,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12. With other somatic diseases,	3	4	7	1	—	1	2	3	5	—	—	—	—	—	—
13. Manic-depressive,	10	16	26	1	2	3	6	7	13	3	7	10	—	—	—
14. Involution melancholia,	1	1	2	—	—	—	—	—	—	1	1	2	—	—	—
15. Dementia præcox,	30	17	47	—	—	—	8	7	15	22	10	32	—	—	—
16. Paranoia or paranoid conditions,	6	3	9	—	—	—	4	1	5	2	2	4	—	—	—
17. Epileptic,	3	1	4	1	—	1	1	—	1	1	1	2	—	—	—
18. Psychoneuroses and neuroses,	8	9	17	—	—	—	—	5	5	—	—	—	8	4	12
19. With psychopathic personality,	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—
20. With mental deficiency,	2	3	5	—	—	—	—	3	3	—	—	—	2	—	2
21. Undiagnosed,	14	14	28	1	—	—	3	2	5	10	11	21	—	1	1
22. Without psychosis,	54	52	106	—	—	—	—	—	—	—	—	—	54	52	106
Total,	161	131	292	4	2	6	37	32	69	54	40	94	66	57	123

TABLE 17. — Age of Patients at Time of Death classified with Reference to Principal Psychoses for the Year ending Sept. 30, 1920.

PSYCHOSES.	TOTAL.			YEARS.																				
	Males.	Females.	Totals.	UNDER 15.			15-19.			20-24.			25-29.			30-34.			35-39.			40-44.		
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.			
1. Traumatic,	1	1	2																					
2. Senile,																								
3. With cerebral arteriosclerosis,	3	1	4																					
4. General paralysis,																								
5. With cerebral syphilis,																								
6. With Huntington's chorea,																								
7. With brain tumor,	1		1																					
8. With other brain or nervous diseases,																								
9. Alcoholic,																								
10. Due to drugs and other exogenous toxins,																								
11. With pellagra,	2	3	5																					
12. With other somatic diseases,	1	1	2																					
13. Manic-depressive,																								
14. Involution melancholia,		1	1																					
15. Dementia praecox,		1	1																					
16. Paranoia or paranoid conditions,																								
17. Epileptic,																								
18. Psychoneuroses and neuroses,																								
19. With psychopathic personality,																								
20. With mental deficiency,		2	2																					
21. Undiagnosed,	1		1																					
22. Without psychosis,																								
Total,	11	10	21																					

TABLE 18. — *Total Duration of Hospital Life of Patients dying in Hospital classified according to Principal Psychoses for the Year ending Sept. 30, 1920.*

PSYCHOSES.	TOTAL.			MONTHS.												YEARS.					
	Males.	Females.	Totals.	LESS THAN 1.			1-3.			4-7.			8-12.			1-2.		3-4.		Totals.	
				Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Males.	Females.		
1. Traumatic,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
2. Senile,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
3. With cerebral arteriosclerosis,	3	1	4	3	1	4	3	1	4	3	1	4	3	1	4	3	1	3	1	4	
4. General paralysis,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
5. With cerebral syphilis,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
6. With Huntington's chorea,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
7. With brain tumor,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
8. With other brain or nervous diseases,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
9. Alcoholic,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
10. Due to drugs and other exogenous toxins,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
11. With pellagra,	2	3	5	2	3	5	2	3	5	2	3	5	2	3	5	2	3	2	3	5	
12. With other somatic diseases,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
13. Manic-depressive,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
14. Involution melancholia,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
15. Dementia præcox,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
16. Paranoia or paranoid conditions,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
17. Epileptic psychoses,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
18. Psychoneuroses and neuroses,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
19. With psychopathic personality,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
20. With mental deficiency,	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	1	2	3	
21. Undiagnosed psychoses,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
22. Without psychosis,	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	2	
Total,	11	10	21	8	9	17	2	2	4	1	1	2	1	1	2	1	1	1	1	2	

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